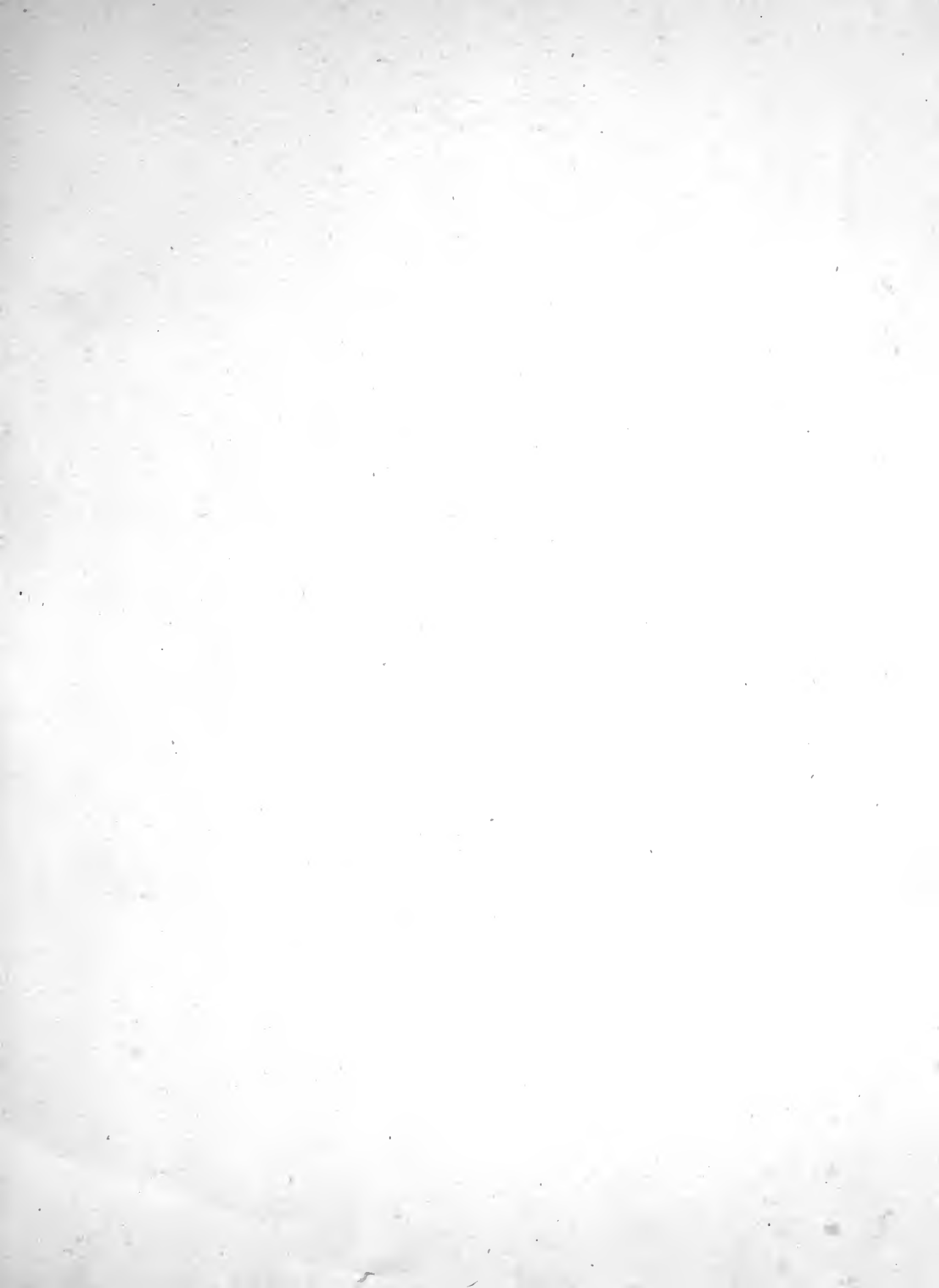




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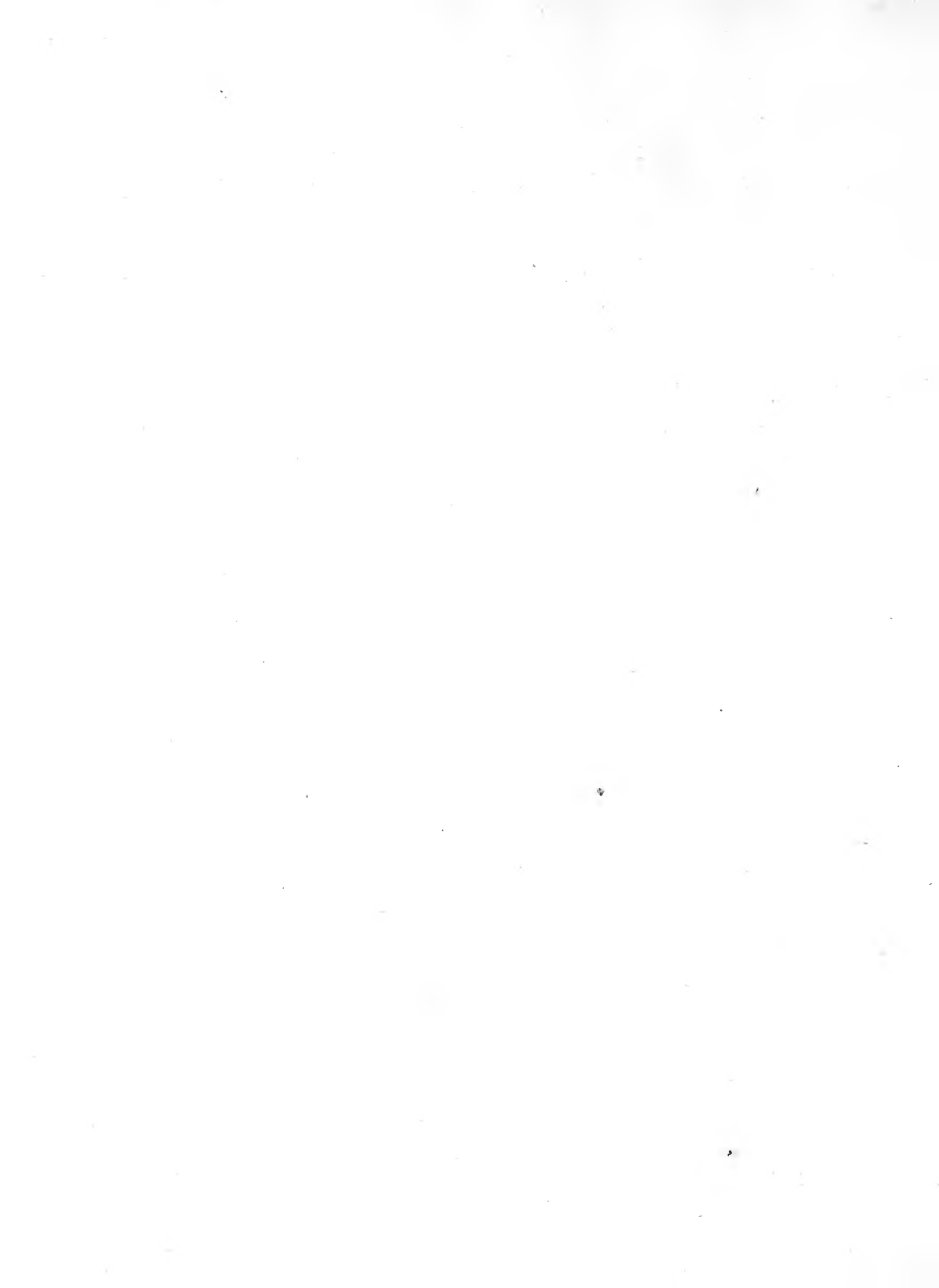
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Circa Numismata;

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1792.

ADVERTISEMENT.

THE following publication is founded on two works, both of established reputation, though of very different merit.

THE work of Mr. CHARLES CLERCK, of Sweden, on the *Spiders* of his own country, has been long admired and celebrated. His information respecting a class of Insects, which many may feel it in some measure disagreeable to study from nature, is minute, curious, and interesting. His method and arrangement of the subject, are truly luminous and scientific. The book, at the same time, was become scarce, and the price of it was consequently much enhanced. Indeed, many lovers of NATURAL HISTORY, have found it scarcely possible to obtain a copy, at any price. At their solicitation, therefore, Mr. MARTYN first turned his thoughts to the revision, and republication of it; its intrinsic value seemed to deserve all the time and trouble which he could bestow (and not a little has he bestowed, to give it a new and more elegant appearance); while the practicable size of the work, which he saw would not, after all, detain him very long from greater pursuits, encouraged him to engage in it. It is now for the first time given in an English dress; and accompanied by a new series of paintings, illustrative of the subjects described.

THE work of our countryman ELEAZAR ALBIN, on English *Spiders*, is of another description. His information in general is loose, miscellaneous, and immethodical: though sometimes it is amusing, and often instructive; but he principally excels in the fidelity and correctness

with which his subjects are delineated, both as to their size and distinctive marks. The editor can speak with more confidence in this respect, as he was fortunate enough to purchase at the sale of the late Duchess Dowager of Portland's Museum, the original drawings, from which ALBIN's plates were engraved; and he has compared the plates with the drawings, and both again with the greater part of the natural objects which they were intended to represent.

AN attempt has been made, to put the information contained in our countryman's productions into a more compact and digested form; while his figures of English *Spiders* will derive additional advantage, from being joined in one volume with Mr. CLERCK's learned and elaborate Treatise. There can be no doubt, that separately executed in a superior style of truth and beauty, the two works would have been acceptable presents to the public; but the editor flatters himself, that united as they here are, they will still farther be found to reflect mutual light on each other.

ORIGINAL PREFACE,

BY

Mr. CHARLES CLERCK.

IN the year 1739, the illustrious Linnæus began his lectures on NATURAL HISTORY, at Stockholm.

IT fortunately happened that I had an opportunity, with a great many others, to attend them; and though, before that time, my occupations had prevented me from paying attention to the science of NATURAL HISTORY; yet I now could not resist the zeal, with which the captivating manner of instruction, in which our illustrious president so much excels, had inspired me.

I SHALL say nothing of the profound knowledge, the admirable power of research, the love of truth and of our society, together with the other virtues of that great man; but shall content myself with acknowledging him (after the example of the most eminent Naturalists) as the guide of their enquiries.

A

ALTHOUGH my labours, in this branch of NATURAL HISTORY, can be considered but as trifling; and though much is yet wanting to the full and perfect history of these insects; yet has this treatise met with unlooked-for honour, in the approbation of the Royal Academy of Sciences of Upsal, to the opinion of which learned body it has been submitted: and when I reflect on this circumstance, I confess myself to be irresistibly impelled, and obliged, to the farther pursuit of the study of nature, and the discovery of those wonders, which tend to shew the power of the Deity in all places.

HAVING omitted a number of circumstances which might have been added, I have endeavoured to be as brief as possible in this TREATISE ON SPIDERS, on a supposition that it might be inserted in the acts of the Royal Academy of Sciences; and as it was my chief intention to save time, I contented myself with mentioning the number of genera and species, and with rendering them familiar by figures, so that they might be easily distinguished; omitting, however, what was not absolutely necessary; as for instance, whether those *Spiders* belong to one or more species, or whether they be young or adult ones, which in the space of a single night cover large fields with innumerable threads? whether want of nutriment obliges them to this? whether they prefigure future tempests, or whether they may be regarded as hints for proper sowing-time? &c. which is a matter well worthy of inquiry in the complete HISTORY OF SPIDERS. But the Royal Academy, perceiving that this history would require a considerable time to be introduced into its transactions, and that those who wished to become acquainted with the history of these animals, would thus be obliged to purchase the whole work, before they could be pos-

ferred of what they desired; did therefore exhort me to publish it separately, and gave me good assurance that the expences of publishing would be recompenced by the sale of the work.

By way of additional illustration, I diligently sought the works of LISTER and ALBIN, who had both written on the same subject before me; but the work of LISTER was unfortunately lost in its passage, and that of ALBIN I have never seen to this hour. At length, however, I obtained, from the Royal Library, the work of LISTER; and found, to my great pleasure, that the same order was preserved in that work, which I had planned in mine.

I MUCH wondered that LISTER, who had examined so many places in Great-Britain, should not have discovered more than somewhat upwards of thirty species of *Spiders*; when in the neighbourhood of Stockholm alone, I have found more than sixty.

I IMAGINE it will not be unacceptable, if I make some extracts from the above work of LISTER, which is become so scarce as to be very seldom seen; and much less easily obtained. Besides, when several authors unite their testimony on a subject, the truth is more confirmed. I also suppose I can incur no blame, in omitting some particulars related by LISTER; my intention being in this work, to relate my own observations, and not those of others.

IN order, however, to prevent much trouble in endeavouring to obtain LISTER's very rare work out of libraries, I shall, for the benefit of my

readers, extract from it briefly some observations, which I have not made myself, but which are there related as well worthy of attention.

PAGE 8. "But what exceeds all belief, and what there is not the least mention of, in the works either of the ancients or moderns, is, that *Spiders*, when young or middle-aged (for I have never observed it in full-grown young ones) have the faculty of mounting by the assistance of their thread, and, committing themselves to a gentle gale, of rising in the air into the very clouds. Thus much is certain, that they have been carried far out of my sight, even though I ascended the loftiest towers, on purpose to observe this particular."

PAGE 9. "The thread, boiled in common water, does not liquefy; nor does it melt in the fire, if exposed to it: it is not inflammable; but like gum, retains its glutinous nature."

PAGE 13. "Goedart, the Dutch writer, says "the Fly, of which we here give a figure, is a violent enemy to *Spiders*, and pursues them with a peculiar antipathy, and kills them; while other Flies fall the prey of *Spiders*, being entangled in their web. I have observed the above-mentioned Flies, while the *Spiders* have been sitting in the middle of their web, watching the arrival of Flies, to seize upon them, and give them a fatal wound. When the *Spiders* perceive them, they endeavour to escape by suddenly dropping down to the ground by their thread; the Flies however pursue them, and break all the bones of their legs, one after the other; and at length having obtained their victory, walk round and round them, as if in triumph. This I have thrice observed, and after-

wards saw it fly away with the dead *Spider*." Thus far Goedart. The above observation relates to the *Retiary Spider*; but BELON, on *Aldrovandus*, relates the same thing of the *Phalangium*. "There is an animal of the Wasp tribe, called an Ichneumon, which wages mortal war with the Phalangium; and since I have seen the battle, I will relate it. The insect is amongst the number of bloodless animals, and is called *Sphex*; its form is different from that of a Wasp, or Bee, but rather resembles a great winged Ant. It is less than a Wasp, and makes its nest under ground, like the Phalangium. It conquers the Phalangium, whenever it can find it out of its hiding-place; but if it find it in its hiding-place, it often returns without its prize. It happened that a *Vespa-ichneumon* seized on a Phalangium, just crept out of its hole, and dragged it after it, as an Ant does a grain of wheat; and drove it about at pleasure, yet not without considerable difficulty; for the Phalangium catching hold of every object which it could with its hooked feet, caused a good deal of hinderance. The Ichneumon, however, pierced him in several places with his sting, which it puts out like a Bee. At length, wearied with the labour, it flew off, nearly to a stone's throw. Then again seeking out the Phalangium, and not finding it just in the place where it left it, pursued its steps, and seemed to scent it out, as a dog does the track of a hare. When it had found it, it struck it more than fifty times with its sting, and again dragging it along, carried it to its intended spot, and there quite killed it." Thus far BELONIUS, page 27, LISTER. "It seems probable to me that *Spiders* emit a poison with their bite; since a *Spider*, which I provoked for this purpose, voided very small drops of clear lymph, ten times or more in a short time; and still repeated it, every time it attempted to bite. I made however the experiment, for the sake of safety, on a piece of

leather, not being willing to venture it on my own skin; so that whether the lymph be venomous, and in how great a degree, I am still ignorant."

THERE are several other remarkable particulars mentioned in LISTER, but not of so much importance as those I have extracted.

FOR the sake of clearness, it was necessary that I should call certain parts of *Spiders* by particular names, according to their uses and functions, at least so far as was consonant to my own ideas of them. I shall be happy, if they are approved; but shall willingly suffer others to be substituted, that may best serve to explain the parts.

I DO not contend for the propriety of the trivial names which I have given to *Spiders*. It is, however, not material by what names they are called, provided the figures do but shew accurately the appearance of the respective species, called by this or that particular title.

I ALSO think it better to acknowledge an uncertainty, as to some of them being really distinct species, or being only different from sex or age, than to obtrude an uncertain manner as a certainty. A few, I have absolutely distinguished, for reasons which seemed to require it; but if future and more accurate observations should prove that any two or more species are in reality but one and the same, I shall willingly give up my former opinion.

I COULD have wished also, had time permitted, to have given figures, which would have borne the most rigid examination; so as in the most perfect manner to agree with their descriptions: I am afraid, however,

that a critical inspection will detect, in several places, a stroke or two less accurately and exactly managed, than might have been expected. Yet although the figures are not quite so elegant, as the rules of finished drawing, and the delicacy of the modern times require, yet I have been careful as to their general accuracy: had they been more elaborate, the expence as well as to the conductors, as to the purchasers, must have been far greater.

THE method in which I have conducted this work, must be left to the judgment of the reader; since what I may have regarded as full and clear in my own opinion, I do not consider as beyond improvement; for which reason, I purpose to supply more fully, by an appendix, whatever, for the sake of brevity, I may have here omitted.

No one can doubt but that there must be more species of *Spiders* than are here given. In order, therefore, that all may, as far as can be, have their full history, I earnestly entreat all who are addicted to this science, to describe each new genus and species, as soon as discovered, together with all the particulars which are shewn in this work to be necessary; and to delineate the *Spider*, and send the drawing, together with the animal itself to me. I shall take care to attribute each to its proper discoverer by name, which shall be commemorated with the animal in the respective supplement.

PART THE FIRST.

OF SPIDERS IN GENERAL.

SECTION THE FIRST.

OF WHAT IS COMMON TO ALL SPIDERS.

1. UNDER the denomination of *Spiders*, I comprehend those insects only, whose thorax and abdomen cohere by a certain slender juncture; and whose males have their sexual organs on the arms; the females under the abdomen.

2. WHETHER *Spiders* can properly be said to consist of distinct head, shoulders, back, and other parts, I do not mean to enquire. For the sake of brevity as well as ease, I call the upper part of the trunk the thorax, or *breast*; and the lower, the abdomen, or *belly*.

3. ALL *Spiders* have eight eyes, eight feet, two arms, and as many holders, each of which are defended by a claw; they have also the power of emitting threads from peculiar channels placed at the end of the abdomen; and propagate their species by eggs.

4. THEY are all predacious, and spare no living creature which is in their power to catch, not even their own species; yet some of them are capable of supporting abstinence for an incredible time.

5. LIKE crabs, snakes, and caterpillars, they cast their skins; some of them not less than three times. At this period they are subject to the danger of the *Ichneumon*, an insect which fastens its eggs upon them; in which case they afford sustenance to the *larvæ* of those insects at the expense of their own lives.

6. Soon after they have cast their skin for the last time, they acquire their perfect stature, and first begin to copulate.

7. THE males are commonly much rarer than the females, and it is probable that one male is capable of impregnating several females. After the time of copulation, hardly any males are to be found.

8. THE males have always a larger thorax, and a smaller abdomen than the females. The abdomen of the females is evidently larger, on account of the ovary, which, swelling at the time of their fecundation, gives them a more handsome appearance than the males.

9. THE males and females never live together, but with the greatest fear and circumspection indulge their mutual desires; in doing which they take up very little time, and, as if frightened, separate from each other. After such interruptions, however, they occasionally repeat their embraces, till the female being impregnated, they very soon disassociate.

10. THE abdomen in the female, after impregnation, swells very much; and if the belly of a large female is opened, a large quantity of eggs may be plainly seen, which are contained in a separate receptacle of a long shape, and which equals a third part of the whole abdomen.

11. *Spiders* are not all of equal fecundity; some having only seven or eight eggs in a bag; whilst others have 50, 100, or even 150 in each bag, which are seven, eight, or ten in number; inasmuch that one female may lay a thousand eggs in a summer.

12. THE care of the eggs and young devolves upon the females alone, differently in the different species; but in most, as in other insects; their eggs being hatched by the warmth of the air alone, without incubation.

13. THOUGH the young are not at first like their parents in colour and marks; yet they have the same shape as to their body, legs, &c. nor is it necessary for them, as it is for most other insects, to undergo a transformation, in order to acquire their genuine shape. The colour and marks come gradually, sooner in some than in others.

14. I HAVE not observed their age to exceed a year, but in other countries there may be species which are longer lived.

15. WHETHER our *Spiders*, as some are of opinion, injure men by biting, or to speak more properly, by lacerating with their claws; or whether the insects themselves or their excrements imprudently swallowed, be hurtful, must be proved by farther experiments. I can only say, that they have laid hold strongly on my fingers, and pricked them, without any harm following, and we know that chickens and small birds devour them greedily without suffering any injury.

16. I HAVE not yet found any *Spiders* which are *smooth*, but most of them abound more or less in bristles and prickles.

17. THEIR excrement is always fluid, and resembling muddy water.

18. I SHALL treat separately of such as have two eyes only; whatever therefore is said here must not be applied to them.

SECTION THE SECOND.

OF THE DIFFERENT PARTS OF SPIDERS.

19. **THEIR EYES** are eight in number, and placed in the fore part of the thorax. But because their different situations, and relative size and colour, serve to distinguish the genera, they will be noticed in the description of each genus.

20. **THEY HAVE EIGHT LEGS**, joined to the lower side of the thorax. Each of them has six joints; the joint nearest the breast is very slender, this is what I call the *juncture of the leg*. The next to this is very thick, and may be called the *thigh*. Then succeeds a nodule, which I regard as a *geniculus*, with which the antepenultimate is joined, and which, being smaller than the thigh, may be called the *tibia* or leg-bone. The penultimate joint, or last but one, is the *foot*. The last of all is the *toe*, on which are seated two black claws. The different length and proportion of the legs, as well as the greater or smaller quantity of hairs, bristles, and prickles, will be particularized in the description of the different casts and species.

21. As all *Spiders* are hairy, though in different degrees, I call the shorter and finer hair *lanugo*, or down; that which is larger and longer, *hair*; when still coarser and harsher, *bristle*; and the strongest of all I name *prickle*, because it bears a much greater resemblance to the prickles of several thorny vegetables, than to hair. The *prickles* are found in the greatest quantity on the legs of *Spiders*, and are of two sorts, viz. acute and obtuse; the former are common; the latter rare.

22. **THE ARMS**, which are placed obliquely under the eyes, before the legs, are hairy; and consist at least of three joints. They may easily be mistaken by inattentive observers for legs, since the animal moves them in walking, as men do their arms in running. The arms are worthy of attention in *Spiders*, as they serve to distinguish not only the sex, but in a great measure the species. The males have two male organs, one seated on each arm; whence the extremities of the arms in the two sexes are differently formed; which will be separately explained, so far as my observations reach, by descriptions illustrated by figures. The arms of all the females are straight, or somewhat like a rounded pole.

23. **THE HOLDERS** (*retinacula*) are a new name, by which I distinguish the two moveable limbs placed under the eyes in a perpendicular line. With these limbs all *Spiders* are furnished;

nished; they are closely joined, and near the thorax are somewhat thicker, but more slender towards the extremity, which is furnished with black or blackish claws, which LISTER has named *tela*, or weapons. By these weapons, or holders, their prey is not only killed and held fast, but is also brought or presented to the mouth, which is situated immediately under them. See plate 10. fig. 4. A.

24. THE MOUTH consists of two jaws, moving below and between the holders. Each jaw is armed with little hooks or teeth, placed semicircularly, with which the animal tears and eats its prey. See letter C. Frisch has observed this; of whose description and figure in Vol. vii. page 7, table 4, of his works, the reader may judge for himself.

25. THE THROAT (*gula*) which is situated below the mouth, and is shewn at letter D. receives the juice which is squeezed by the jaws from the prey.

26. THE THORAX (*pectus*) is the trunk to which the several parts forementioned are joined. This in most species is rather more slender forwards; it is obtuse however, and flat underneath. The upper part is more or less sharp, like the roof of a house, in some species, while in others it is flat. In some it is very hairy, but in others there are only scattered hairs upon it. These have a gash or juncture on the thorax, resembling the letter V. Of the internal structure of the thorax I can determine nothing at present; but from conjecture, I imagine the received aliment to be conveyed here, and digested for the support of the other parts.

27. THE ABDOMEN (*alvus*) if we except the length of the legs, constitutes the greater part of a *Spider*, especially in the female, whose species are elegantly distinguished by the changeable colours and marks with which this part is ornamented. It is very nicely connected with the thorax by a very slender bond; one end of which is joined with the centre of the thorax, towards the hinder part; the other with almost a third of the lower part of the abdomen, especially in the retiare *Spiders*, or those which make webs. The sexual organ of the female is situated on the under side of the abdomen, towards the fore part of it, and is very conspicuous in the time of copulation; its particular description will be given in the history of those species of *Spiders*, which I have observed at that period.

28. THE EGGS, which are never deposited naked, but always wrapped up in a larger or smaller web, are not alike in all the different species, but are angular in some, in others round, and so glued together, as not to be separated without destroying them; as will be shewn in its proper place. I shall here only divide them into three classes, viz. into *large*, *small*, and *middle-sized*. They are not covered with a shell, like the eggs of birds, but merely with a soft skin, which is so transparent, that the colour of the foetus may be distinguished through it,
and

and unless I am deceived, even the distinguishing marks of the young *Spider* before it is hatched. When the insect is hatched, this skin collapses into a shrivelled bladder.

29. In the hinder part of the abdomen in both sexes, there are some prominent *tubercles*, through which they emit the threads with which they make the webs; and as the tubercles vary in the different species, I shall take an opportunity of relating my observations on them; and in the description of the *Water Spider*, I shall shew that the tubercles serve also for the purpose of respiration.

30. In the midst of the tubercles, and concealed amongst them, lies the aperture of the anus.

31. THE SHELL, SKIN, or *Epidermis*, which *Spiders* cast, is horny and transparent, yet cartilaginous, shewing the size of the animal in the thorax, legs, eyes, arms, and holders, and even the claws; but the covering of the abdomen is a pellicle or thin skin, which does not retain its shape, but all contracts in wrinkles. The *Spider*, when about to cast its skin, seeks out a proper place where it may lie torpid, wrapped up in its web. The whole shell of the thorax being then broken off, is separated from the limbs, adhering only a little by the hinder part, the fore part being bent upwards. At this time the animal is in such a lethargic and languid state as not to be able to defend itself, even against a gnat; at length it comes to itself again; and as far as its weak state will permit, begins to shew a little agility by kicking and pulling; resting a while between every attempt, and then going to work again, till at last it has extricated itself entirely from the old skin; but so great is the debility under which the animal still labours, that it is yet unable to go the length of its body from the slough; it therefore remains suspended in its web, till the air has sufficiently dried and strengthened its skin, when regaining its usual powers, it resumes its wonted manner of living, clad in its new habit or skin.

PART THE SECOND.

THE DIVISION OF SPIDERS INTO TROOPS, CLASSES, GENERA, AND SPECIES.

CHAPTER I.

NATURE seems to have divided *Spiders* into two troops :

AERIAL, specimens of which occur every day, and

AQUATIC, living in waters, and not so common.

Aërial *Spiders* divide readily into two classes:

1. *Retiary*, or such as weave webs, some in one manner, some in another, for catching their prey.

2. *Leaping*, or such as make no webs, but take their prey by leaping on it, as a cat does on a mouse, or a hawk on a pigeon.

Retiary or *Web-Spiders*, may be distinguished into three genera.

1. VERTICAL, or such as extend round nets.

2. IRREGULAR, whose nets are neither round, nor thick, but composed of threads crossing each other.

3. WEAVERS, or such as make close webs, thick woven like cloth. (*Textores*).

Leapers are also divided into three genera by Lister.

1. LUPI, or *Wolves*.

2. PHALANGIA.

3. CANCRIFORMES, or *Crab-shaped*.

CHAPTER II.

CHAPTER II.

OF VERTICAL OR WEB-SPIDERS.

1. I THINK proper to begin with these, because their spiral or twisted webs are most obvious. They prefer open places to spread their nets in; and place them almost perpendicular to the horizon, whence their name: or they might have been denominated from the regularity or roundness of their nets.

2. THEY work at their webs all day long, beginning by throwing out some longer threads over the space which they purpose to occupy. Nature instructs them skilfully to double those threads which are to bear the heaviest burthen; and to tie them together, in such a manner that the threads run all at equal distances.

3. WHEN they have expanded their webs, they fix a downy spot in the place destined for the centre of it: then they make the number of radii for which they have occasion; but they do not make so many as appear to be in the web when it is finished, because they put in new ligaments occasionally, at their leisure, and when they are wanted; whence these additional cross-threads are not obliged to be extended the whole length from the centre to the circumference.

4. MOREOVER the *Spider* applies itself to the outer or lower side of the web by means of its claws, where hanging, without respect to right or left, it begins to connect the radii by the cross or spiral threads.

5. THOUGH I have never observed any *Spiders* to begin their webs from the centre, but always from the circumference, yet I have nothing to say against those who have seen the contrary; I only relate what I have observed myself.

6. SINCE the intervals between the radii and cross-threads, near the circumference, are too wide for the *Spider* to pass over, it advances on one radius towards the centre, till it finds another near enough for it to mount easily. It then follows this till it is got opposite to the spot which it has just weaved into the former radius. It then lays hold of the thread which it has emitted from the tubercles with the claw of its hinder leg, and in an instant applies it to the last radius, fastening it without any knot, but by means of a glue, so tight, that
when

when it is dry, it cannot be separated without damaging the web. The *Spider* performs the same operation at each radius, till it has made the whole circuit; approaching continually nearer to the centre in a spiral; nor does it stop till the whole is completed, and made perfectly convenient.

7. WHEN a web is torn but a little, the *Spider* repairs it, but not so regularly and elegantly as the original one: if the rent is considerable, the animal prefers making a new web to repairing the old one.

8. THE number of radii and circles is not constantly the same: I have counted forty-eight of the latter in some webs.

9. NATURE has instructed the young *Spiders* to make webs, without the education and assistance of their parents.

10. BOTH sexes of the same species make webs of the same sort; nor are the webs of the young ones at all different, except in size and strength.

11. IF the end of a thread is fixed any where, the thread comes from some tubercle of the *Spider*, in a manner spontaneously as it walks along; otherwise not.

12. THIS thread, whether it be drawn out by the hand, or emitted voluntarily by the animal, is all of one continued length.

13. I DOUBT whether any one has attempted to guess at the manner in which the *Spider* may retract an emitted thread into its abdomen; and much more whether any one has confirmed the hypothesis by probable arguments. At the end of the work, in the description of the *Water-Spider*, I shall treat shortly upon the subject.

14. WHILST they are at rest in their webs, they hang from the centre of the under side, with their heads downwards.

15. THE females, at least all which I have had an opportunity of observing, die soon after they have laid their eggs.

16. *The genuine characters of these Spiders are:*

1. FOUR eyes, of nearly equal magnitude, placed in a square, in the middle of the forehead; the four others, which stand two on each side, varying a little in situation and size, will be described according as they differ in the different species.

2. THE fore legs are the longest; the second pair next; then the fourth; and the third pair is always the shortest.

SPECIES I.

S P E C I E S I.—ARANEUS-ANGULATUS.

A N G U L A R - S P I D E R.

IN the middle of June I caught a male, which I fed to the 26th, in hopes of catching a female. But finding it weak, I had it drawn immediately as at plate 1, fig. 5. On the 27th, in the morning, it changed the skin, and I fed it afterwards till the 20th of August; on the 21st it was found dead. All this time no female of the same species occurred, nor any other male. After having changed its skin once, both the marks and the nature of the skin remained the same.

THE eyes are black and all of the same size, except the two last of the lateral ones, which are rather less, and stand prominent from the tubercles. Eight very long crooked hairs appear between the eyes, black near the thorax, and livid towards the tips.

THE legs are black, of which the four anterior ones are marked with fewer, and the four posterior ones with more numerous circles. All of them are downy and beset with frequent prickles, which near the breast are partly black and partly dusky, but towards the extremities are whitish, or even quite white.

THE breast or thorax is heart-shaped; very flat, a little dusky, abounding with a soft and somewhat greyish down. The narrow border next the legs is more inclining to white.

THE abdomen is ovate and downy; marked in a wavy manner with smoke-coloured and reddish flames. The juncture by which it is connected to the thorax terminates beneath, at about a third part of the abdomen: At the upper side occurs a ring of milk-white hairs. On the middle of the upper part is a white conical spot, the apex of which points to the head, and the base to the tail: The tip is marked by three little black specks, one near the tip, and the other two equi-distant from the base. Below these, and within the white spot, towards the base, a black mark is situated of an almost triangular shape, with its base upwards, and its point downwards. To the above-described figure, a white line is added beneath, like a handle or foot; so that this with the former gives the appearance of the beautiful pinus abies, or fir, so frequently seen in gardens, except in respect to colour. The whole of this figure in

length takes up at least a third part of the upper side of the abdomen. In each side of this figure, and in a right line, an angle is apparent; hence a third part of the upper side of the abdomen appears triangular.

THE *arms* are tuberos, globose, and sprinkled with long and short hairs intermixed.

THE *holders* are blackish.

ON the first of September a *female* was found, as represented in plate 1, fig. 6. On the 9th, she laid a parcel of eggs almost as big as a horse-bean. The eggs, being slightly glued together, might be separated with care. They were yellowish, very large, and about fifty in number, wrapped up in black roughish flue, fastened by threads of a sooty colour within, but greyish and loose on the outside. They seemed fastened to the wall of her cell. On the 10th she was found in a dying state, and dead on the 11th.

SPECIES II.—A DIADEMA.

CROWN-SPIDER.

ON the 22d of July, the species represented on plate 2, fig. 5, was ready for copulation. These may always be found in fine weather, but of different sizes. When they are full grown their colour and form change. They cast their skin three times. I should have doubted whether Ichneumons ever deposited their eggs in the bodies of *Spiders*, had not this species twice convinced me of it. They guard against autumnal frosts and storms, by making a thick globular cell, with the funnel for entrance beneath.

THE eyes on each side are close together in the same hollow.

THE legs are adorned with alternate circles of white and grey, and are covered with hairs, bristles, and prickles of different lengths.

THE thorax is heart-shaped, flat, rather dusky, and thinly scattered over with fine white down.

THE

THE abdomen is ovate, somewhat dusky, and sprinkled with yellow, and in some with reddish. It is covered with a white down, and with long hairs projecting on every side: It is marked with greyish little spots, in the form of a diamond-cross, and with blackish undulations placed obliquely on each side, but beneath, around the sexual organ, is a dark oblong line.

THE arms are beset with hairs, bristles, and prickles of different lengths.

THE holders are black, with white thinly-scattered down upon their upper surface.

ON the 30th of August I found one female, plate 3, fig. 5, in every respect like the former, except the marks on the upper side of the abdomen, which were not disposed in the same manner: the dots forming the cross there, were very small and scarcely visible, and placed in a different order. If this should be thought a new species, it may be called *peleg*.

S P E C I E S III. A. QUADRATUS.

S Q U A R E - S P I D E R.

THIS species is found full-grown, and common in the beginning of September, on shrubs about open fields, plate 7, fig. 5. It makes a large web of thick threads, and usually resides in a close cell, over the funnel, with a thread from the centre of the net fastened to one of its hind legs, in order to be more certain of any prey that is caught in the net.

THE eyes are black and large.

THE legs are hairy, bristly, and prickly. The hairs white, but the prickles commonly black, except some which have white tips.

THE breast ovate, whitish, flattish, with a smoke-coloured line, in a longitudinal direction, which is covered with fine down.

THE abdomen is ovate, bright, thinly scattered over with fine down, and long hairs. The juncture by which it is attached to the thorax, is situated nearly at the middle of its lower surface. Down the length of it is stretched a line, consisting of white dots with reddish margins.

There

There are two largish white spots on each side of the above-mentioned line, of a square shape, of which the two lowermost are rather largest, and are more distant from each other; and these are the marks by which this species is distinguished. The other spots are not of equal number in different individuals. The blackish, yellow, or red colour of the abdomen, is of such a whitish appearance in some as to appear mossy.

THE long arms are whitish, and abound with long black hairs and prickles, and are marked with dusky circles.

THE holders are perpendicular, whitish, a little downy on the upper part. Lift. de Aran. fig. 8.

S P E C I E S IV.—A. MARMOREUS.

M A R B L E D - S P I D E R.

ON the 22d of August a single female was found, in a web fastened to the top of a tree. See plate 6, fig. 6.

THE eyes are black, and conspicuous in the tubercles.

THE legs, marked with circles, hairy, bristly, and prickly.

THE thorax heart-shaped, flat, whitish, but a little downy.

THE abdomen ovate, connected to the thoracic juncture, at about a third of its length; it is covered with a fine down, like silk, of a whitish ash-colour, and is marked on the upper part with a somewhat obscure cross of white specks. On the upper part on each side run out two largish white spots into two oblique little branches, one of which unites with the anus, the other looks as if broken off. The inferior or under part of the abdomen is black between the anus and the sexual organ, but is of a different colour at the sides. The sexual organ is remarkable for having two ovate yellow radii on its upper part.

THE arms are beset with hairs, bristles, and prickles of different lengths.

THE holders are whitish, perpendicular, coated with white down, and are black towards the claws.

TOWARDS

TOWARDS the end of August, several females of this species, plate 2, fig. 7, were found, in cells adjoining to webs; some of which were less splendidly coloured and figured.

THE eyes black, and projecting from the tubercles.

THE legs whitish, with blackish spots, and scattered over with bristles and prickles.

THE thorax heart-shaped, somewhat dusky, and downy.

THE abdomen ovate, cohering with the thorax by a juncture, fixed at about a third of its length. The colour is red, and the surface downy, like silk. Two longish bright marks shine on each side, the lower margins of each are blackened by excavations, with impressed points, of which the two superior are rather smaller than the inferior. To these points, on each side, succeeds a longitudinal wave, or line, which is at first black, then whitish, then broader and yellow, and lastly narrow and black. Between these lines, towards the anus, some brown transverse lines appear. Towards the sides, below the abdomen are some variegated oblique lines of yellow and blackish.

THE arms are of the same colour with the legs, and are hairy, bristly, and prickly.

THE holders are whitish, perpendicular, and thinly scattered over with fine white down.

THOUGH these two appear at first sight to be very different, yet I have good reason to think that the one is no more than a remarkable variety of the other. If, however, this should prove a distinct species, it may have the name of *Babel*.

S P E C I E S V.—A. UMBRATICUS.

R E T I R E D - S P I D E R.

ON the 13th of June, I found a single female in the dark chink of a post, supporting a fence. At first it seemed dying, but was immediately after found to be very lively. I afterwards found that it avoided the light, and that it made its web either in the night, or at the first dawn of day. It was very fond of moths, and seemed almost to neglect flies. I therefore took much pains to obtain moths for it. In less than a month, I found two others. On the 24th of July, I saw their manner of weaving, and what sort of prey they lie in wait for, in the thick cells which are fastened to their nets. Whatever is caught in the day-time, they

pay no regard to, but they attend diligently to what is caught in the night and the twilight.
Plate 5, fig. 3.

THE side eyes are two in each cavity.

THE legs abound with longish hairs, bristles, and prickles.

THE thighs are blackish; the remaining part variegated with blackish and greyish.

THE thorax is almost square, flattish, a little more pointed towards the fore-part; it is brownish, a little shining, hairy, and begirt with a narrow greyish line near the legs.

THE abdomen is ovate, flattish, coated with soft down, and has in the middle a broad space, surrounded by a multangular line: towards the sides it is white; and above in the middle black. The space itself is marked by yellowish points or specks, and near the thorax four incisures appear, of which the two upper ones are a little smaller than the others. The lower or under part of the abdomen is brown, except the sexual organ, which is surrounded by two white crescents.

THE arms are variegated like the legs, and are also hairy, bristly, and prickly.

THE holders are black, perpendicular, and thinly haired.

THE eggs are yellowish, glued together in a double bag, forming a mass about the size of a garden-pea at its full growth.

THE young, which I discovered on the 22d of July, were at first black; they quickly changed their skin, and by the end of August acquired half their size. Lister, de Aran. fig. 9.

S P E C I E S VI.—A. PYRAMIDATUS.

P Y R A M I D A L - S P I D E R.

THREE females of this species, plate 10, fig. 7, were found the beginning of August, and fed to the middle of September: but all this time I could not find a male of this same species. One of the females changed its skin a short time after it was taken.

THE eyes projected from a yellowish tubercle: the two upper ones less distant than the others: the two lateral ones not joined, but single, each on its tubercle, placed obliquely.

THE legs whitish, with brown circles, white hairs, and black prickles.

THE

THE abdomen ovate, cohering with the thorax, at a third of its length; marked by a figure, somewhat like a Narwahl's horn, of a blackish colour, seated on the white base, and variegated round about with yellowish. Two black incisures appear from the region of the thorax, in a transverse direction on the middle. On each side, it is as it were smoked, and varied with yellowish lines, in an oblique direction: below, between the sexual organ and the anus, it is black, ornamented on each side with yellow crescents, with the horns pointing inwards. The sexual organ of this female, which happened at this time to be in season for the male, I found to be like what is figured by FRISCH. Germ. Tom. 7. p. 7. tab. 4. fig. 3. This author, either because he had never seen *Spiders* in copulation, or had not accurately observed them, mistakenly calls the female by the title of the male.

THE arms are whitish, and armed with hairs, bristles, and prickles of different lengths.

THE holders are whitish, strewed with fine white down.

S P E C I E S VII.—A. OCELLATUS.

E Y E D - S P I D E R.

A FEMALE, taken the middle of June, soon afterwards produced a parcel of eggs, the size of a common pea, rolled up in a bag, and deposited in a corner. A week after, another of the same size, which she deposited in another corner, and in a week after this another, which was also laid in a third corner: after this the abdomen grew thin. Plate 10, fig. 6.

THE side-eyes, of which the last is the smallest, are close in one cavity.

THE feet abounded with hairs, bristles, and prickles.

THE thorax was ovate, flat, somewhat dusky, and covered somewhat thickly towards the eyes with white hairs.

THE abdomen is almost globose, a little pointed towards the tip; the juncture by which it is affixed to the breast ends below, at about a third of its length; it is downy like silk, and very red, it is ornamented with a blackish cornucopia, which is marked on each side by five rufous contiguous spots, decorated by a white border, and larger towards the fore-parts. In

the

the middle, two incisures divided the reddish space of the horn, and as many rather larger separated the horn from the space. The base of each of the incisures was black. The lower surface of the abdomen was blackish, and round the sexual organ marked with two crescents.

THE arms abound with hairs, bristles, and prickles.

THE holders are perpendicular and black.

THE eggs are yellow, produced in contiguous tricæ, and united so closely by six connecting parts, as not to be separated without injury.

THE young, which came out on the 16th and 23d of July, had blackish breasts, variegated legs, and backs like that of the female; only with the markings not so distinguishable.

S P E C I E S VIII.—A. PATAGIATUS.

EMBROIDERED-SPIDER.

THIS species was found about the middle of June. Plate 4, fig. 3.

THE side-eyes are in the same cavity.

THE legs are armed with hairs, bristles, and prickles of different lengths.

THE thorax is ovate, slightly flat, somewhat dusky, and strewed with white down.

THE abdomen ovate, connected to the thorax, at about a third of its length; downy like silk, blackish, and remarkable for having a pointed mossy triangle, ornamented internally with a yellowish band. A little lower towards each side is seen a sort of embroidery, bordered with moss or down, and in the middle of this a blackish cornucopia, marked above with two yellow lines, divaricating above, but uniting below; and by two other yellowish lines, of which the superior is longer, and broken in the middle: the above lines are cut transversely. Below, near the breast, where the thoracic juncture commences, the abdomen is girt by a circle. The sexual organ is constituted by two flat greyish semi-circles. Five shortish tubercles surround the anus.

THE arms are hairy, bristly, and prickly.

THE holders black, perpendicular, and downy.

SPECIES IX.

S P E C I E S IX.—A. CORNUTUS.

H O R N E D - S P I D E R.

THIS species is common about the middle of June. The markings vary; for there are brownish ones as well as black or white. The most common mark is a longitudinal black one on the abdomen, which has the appearance of two cornucopias opposite to each other. Plate 7, fig. 6.

THE eyes are black; the side-ones, of which one is rather smaller, the other a little larger than the four middle ones, are joined together in the same cavity.

THE legs are hairy, bristly, and prickly.

THE thorax is lightly scattered over towards the middle with white down, which is more abundant towards the eyes.

THE whole abdomen is downy, like silk, and marked by a spot, as represented in the figure. Below, near the sexual organ, are two whitish crescents.

THE arms abound with hairs, bristles, and prickles.

THE holders are perpendicular, black, and hairy.

THE eggs, which were laid on the 24th of June, in a mass of the size of a large garden-pea, cannot be separated without injuring them. A long simple thread immediately involves them, and on the outside of this are loose hairs.

S P E C I E S X.—A. SERICATUS.

S I L K Y - S P I D E R.

FOUND the middle of June. I venture to comprehend this under its proper species, on account of its varying marks; not solicitous whether hereafter the contrary may not be proved by certain and new experiments. Plate 1, fig. 8.

F

THE

THE eyes are black; the lateral ones almost concreted; the interior rather larger than the exterior.

THE legs, which are marked with alternate whitish spots, abound with whitish hairs and black prickles.

THE thorax is ovate, black, flat, with a white margin, and is all over as if greyish with white hairs.

THE abdomen is ovate, black, and remarkable for a foliaceous marking, shaded as it were by a silky web, which the figure better expresses than words. It is connected at about a third of its length with the thorax; yellow semi-circles surround the sexual organ beneath.

THE arms are covered with unequally long hairs, bristles, and prickles.

THE holders are perpendicular, black, and towards the eyes slightly hirsute.

ABOUT the middle of June, a male was taken in a web, on the precipice of a mountain. Plate I, fig. 7. Black lines drawn transversely over the abdomen, and two angles on the upper part of it, distinguish this particularly. I dare not affirm certainly whether it be a distinct species, or whether it belong (which, however, I doubt) to one of those already described. In the mean time, it is here set down without a number, under the title of *virgatus*, striped.

THE eyes are very small; the two last side ones smallest, and almost joined to those next them.

THE legs are alternately girt with black and greyish circles, and are coated with unequal hairs and bristles: they also abound with prickles.

THE thorax is ovate, flat, darkish, and thickly coated with white down.

THE abdomen is ovate, although two remarkable angles, which form a flattish space on the upper part, give it a triangular figure. Through the angles runs a thicker and blacker line, marked in the middle with a white dot. White waves seem to tend obliquely towards each side. The thoracic juncture is fixed at about a third part of the abdomen.

THE arms of the male are ovate, black, and unequally hirsute, and terminate in the sexual organs.

THE holders are black, hairy, and perpendicular, with blackish hooks.

SPECIES XI.

S P E C I E S XI.—A. SCLOPETARIUS.

G U N - S P I D E R.

THIS is met with about the middle of June. Plate 2, fig. 1.

THE side-eyes are almost joined.

THE legs, which are hairy, abound with large black prickles. The juncture is black: the thighs are greyish, or even milk-white, and black towards the joints. The remaining part of the leg is girt with greyish and dusky bands.

THE thorax, somewhat dusky, rather flat, ornamented with a narrow white border towards the feet, abounds towards the eyes with white down.

THE abdomen is ovate, downy, and black, is greyish, and undulated at each side. The figure shews its singular marking better than any verbal description.

THE arms of the male, fig. 3, letter (*a*), have the last joint brownish and downy; in the hollow of which, (*b*), lies the sexual organ, which projects on being touched.—(*c*) represents the last joint but one: it is whitish, and has two longer, with two shorter bristles. The figure shews these particulars clearer than a long description.

THE holders are black, very little downy, and perpendicular.

THE eggs are about thirty.

THE young are hatched about the beginning of the dog-days.

S P E C I E S XII.—A. CUCURBITINUS.

G O U R D - S P I D E R.

THIS species frequents leafy trees in July and August.

THE figure, plate 2, fig. 6, is rather larger than life.

THE side-eyes are contained in one cavity.

THE

THE legs are greenish, and have hairs, bristles, and black prickles.

THE thorax is flat, downy, and of a greenish brown.

THE abdomen is ovate, greenish, adorned with yellow lines and black specks, and is beset with black hairs.

THE arms are covered with hairs, bristles, and black prickles.

THE holders are whitish and perpendicular.

THE eggs, which are about forty, cohere in a mass of the size of a pea, and are involved in a stiff greenish flue. *Fauna Suec.* 1224.

S P E C I E S XIII.—A. SEGMENTATUS.

P A T C H E D - S P I D E R.

FREQUENT the beginning of September, out of their webs, with a thread fastened to one of their legs. Plate 1, fig. 1. I have not observed any of these to make a particular web for their ova, as many of the former do.

THE eyes are conspicuous, and black.

THE legs brownish, and roughened with hairs of unequal length, and black prickles.

THE thorax ovate, brownish, glossy, without down.

THE abdomen ovate, covered with very soft down, like silk.

THE males have the abdomen reddish and blue, fig. 1; but in the females it is yellow, with a longitudinal ray, and two lucid marks towards the sides. On the upper part of the female are also four black points, fig. 2.

THE arms are whitish and hairy: those of the male terminate in black balls, whence hangs a process, resembling a cock's spur, of a blackish colour. Those of the female are round and blackish at the end.

THE holders are brownish, glossy, and perpendicular.

SPECIES XIV.

S P E C I E S XIV.—LITERA X. NOTATUS.

X - M A R K E D - S P I D E R.

THE females of this species are found in the middle of September; they weave a regular web, and when terrified by handling, will seem as if dead, but not for any long time. Some of them prefer sitting out of their web, with a thread from the centre of it fastened to one leg. Plate 2, fig. 2.

THE eyes are large and black.

THE legs hairy, bristly, and prickly, and furrounded by fasciæ.

THE thorax ovate, nearly round and brownish, except the letter (V), which is black, but scattered over with extremely fine down.

THE abdomen is nearly globular, downy like silk and black. The astronomical character of the sign *Pisces*, or a letter (x) is seen on the upper or fore-part; it is of a greyish colour, and is, as it were, supported below, or towards the anus, by various dots and confused specks, which are gradually more and more obscure.

THE arms are hairy, bristly, and prickly.

THE holders brownish, the divaricated extremities of which are armed with black hooks, or claws.

CHAPTER III.

OF WEB-SPIDERS OF THE SECOND KIND, OR

IRREGULAR-SPIDERS.

1. AT first sight their manner of weaving is disagreeable; but when it is attentively considered, it appears no less artificial than that of others.

2. THEY extend long threads between the larger boughs of trees and shrubs, comprehending a large space, and fill up the intervals in such a manner with shorter threads, connected

and thickened with other cross ones, that not even a gnat can pass safely through the angular meshes. This web, at the same time, is so strong that insects of the larger kind are entangled in it. The circumference of the web has sometimes a round tessellated form, and sometimes it is multangular and oblong: the inner web however is always regular.

3. THE *Spider* lurks in some corner, or at one end of the web, and if a gnat strikes the web ever so gently, he feels it by the motion of the threads under his feet, and leaps out to reconnoitre his prey.

4. THE females, as far as we can discover, after they have laid their eggs, live till their young are big enough to feed themselves.

5. THE situation of the eyes and the proportion of the legs are the same as in the *Spiders* before described.

S P E C I E S I.—A. CASTANEUS.

C H E S N U T - S P I D E R.

FEMALES of this species were found the beginning of September. Plate 3, fig. 8.

THEIR eyes are large and black.

THE legs, which are covered with unequal dusky hairs, bristles, and prickles, have black spots on the joints.

THE thorax is small, brownish, glossy, ovate, obtuse, flat, and thinly sprinkled towards the eyes with fine black down.

THE abdomen is nearly globose, copper-coloured, glossy, covered with a fine and soft down like silk, is marked by a series of longitudinal white specks, which are crossed towards the anus, by two transverse lines. A similar series runs obliquely on each side, beneath which the abdomen is dusky until the lowest part, which is copper-coloured like the upper. Two white triangular spots surround the sexual organ.

THE arms, which are coated with unequal hairs, are whitish.

THE holders are brownish and clawed.

THE

THE eggs are of a middling size, separate, round, whitish, and about fifty in number, wrapped up in flue.

THE young, which come out in the middle of September, are white.

S P E C I E S II.—A. HAMATUS.

H O O K E D - S P I D E R.

THE middle of September one female was found in a thick cell, woven in the branch of a juniper. Plate 3, fig. 6.

THE eyes are scarce visible, and black.

THE legs very short, dusky, bristly, and prickly.

THE thorax ovate, slightly round, black; but very little downy.

THE abdomen nearly globose, red and blue, ornamented by a glossy, silky, longitudinal white line, which grows thinner or narrower towards the anus. Four white branchings or processes, of which the anterior are more hooked than the others, and are turned towards the curvature of the abdomen, appear on each side the line. To this succeeds a little transverse line; the sides of the abdomen, a greyish and undulated variegation is seen.

THE arms are dusky, hairy, bristly, and prickly.

THE holders are black.

S P E C I E S III.—A. LUNATUS.

M O O N E D - S P I D E R.

ON the first of July, one female of this species was obtained. On the fourth of the same month, she laid one ball of eggs, and between that and the 18th of September, nine others. After each of these operations she grew very lean, and increased again a little before the next. Plate 4, fig. 1.

THE

THE side-eyes are black, and closely joined.

THE legs slender, longish, brownish, and roughened with unequal hairs, and a few bristles. Although only four are delineated in the figure, yet eight are visible in the *Spider*.

THE thorax is very small, ovate, flat, nearly black, and sprinkled with fine down.

THE abdomen pear-shaped, with the large end upwards, and the small one downwards. It is of a bay colour, bright, beset with fine white down, and is marked above with two white crescents, opposite each other. In the corner of the posterior side there are two small white specks, and above, or in the anterior, two more, which are larger, as in the figure. Towards the thorax the abdomen is of a bluish white, and about the middle is situated the thoracic juncture.

THE arms are somewhat dusky, and hairy.

THE holders are blackish, and a little downy.

THE eggs are involved in a thick web of about the size of a pea, not unlike a dry and wrinkled bladder.

AN hundred separate eggs, of a white colour, and round, are contained in each follicle, which is suspended in a little web near the female.

THE young, which come forth in three weeks, keep close to the female, and feed upon the prey which she takes; but when grown large enough to shift for themselves, they all differ different ways.

SPECIES IV.—A. SISYPHIUS.

SISYPHUS - SPIDER.

THIS species is common in July and August. Plate 4, fig. 4. They make their nests of the small pieces which fall from the buds of trees; and they thrust these into their web, so as to make it firm and close. The inside is lined with a soft smooth down; and is in the form of a bell. Those nests which are made of the pine and juniper, are more pointed and handfomer,

handfomer, and they prefer these trees; though I have never found them on the *pinus sylvestris*, or Scotch fir. The females always live under the bell, embracing the bags of eggs; which, though they are bigger than themselves, they are continually rolling about with great facility.

It is difficult to determine the number of the eyes in this species: of forty, which I have examined attentively, it appeared from one only, that the side-eyes were joined in one cavity. To common inspection, there appears to be but six, which being contrary to analogy, is not probable.

THE legs are hairy, bristly, and prickly.

THE thorax ovate, flat, and thinly haired.

THE abdomen like a pepper-corn, or a small pea, nearly round, filky, brownish, yellowish towards the anus, and marked above with a reddish wedge-shaped spot, in a longitudinal direction, which has a white margin, and three transverse white lines on each side. The sides are a little yellowish.

THE arms are guarded with hairs of unequal length, and prickles.

THE holders are brownish.

THE eggs are about eighty, very small, separate, round, white, with a slight tinge of yellow, wrapped up in a greenish, light, round flue.

THE young come out in the dog-days. They live under the bell with the female, who kills all sorts of insects, which are entrapped in her net, and drags her prey to the side of the cell for her young ones, which come out and fasten on the prey, tearing and sucking it with great eagerness. They are whitish on the breast, and dusky on the abdomen, and the sketches of the future marks are but faint. See FRISH. Germ. tom. 10. p. 21. t. 18.

S P E C I E S V.—A. FORMOSUS.

H A N D S O M E - S P I D E R.

ON the 10th of September, one female was caught, which was very handsome; she was found in her net, together with two heaps of eggs. Plate 3, fig. 7.

THE eyes are black; the side ones not very conspicuous.

THE legs brownish, with black bands, and coated with hairs and prickles of dissimilar length.

THE thorax ovate, flat, black slightly hollowed in the middle, and scattered with thin hairs.

THE abdomen would be globose, were it not a little acuminate towards the anus. The centre of the abdomen is joined to the thorax, and has the obtuse part upwards, and the point downwards. Towards the fore part, the sides, and below, it is black: towards the anus yellowish. Two white crescents, succeeded by two white lines on the hind part, separate or distinguish the anterior or black part of the abdomen from the posterior or yellow part. There is an oblong black spot on the wedge, near the two white specks, which is formed by two turned crescents. In the curvatures of the crescents, are red ovate specks, and above these are two remarkable and large white spots upon the black space. The abdomen is also furnished with five tubercles, and is all over bright and downy.

THE arms are downy and blackish.

THE holders black, a little downy, and perpendicular.

THE eggs are contained in follicles without any flue, and from thence proceed about forty young ones, or more, which are very beautifully marked; and in these, even when very young, may be seen, by the assistance of the microscope, all the marks of the mother. (*k*) shews the natural size.

SPECIES VI.

SPECIES VI.—A. OVATUS.

OVAL - SPIDER.

ON the 8th of September, ten or twelve females of this species were found on the hawthorn. Plate 4, fig. 2, guarding their eggs, which were enclosed in a glaucous flue, under the leaves.

THE eyes are very small and black: the lateral ones almost concreted or united.

THE legs very long, slender, whitish, and hairy, the joints of which are decorated with greyish dots.

THE thorax ovate, flat, brownish, bright, marked by a longitudinal glaucous line.

THE abdomen oblong, ovate, hirsute, yellowish, marked longitudinally in the middle, by an acuminate, ovate, red spot.

THE arms hirsute, brownish.

THE holders whitish, perpendicular.

THE eggs separate, round, whitish; about an hundred of them are equal to the size of a pea.

 SPECIES VII.—A. REDIMITUS.

RIBBAND - SPIDER.

ON the 27th of August, I caught a single female, wrapped up, together with her bag, in a glaucous flue; but refusing food, she died on the 6th of September. Plate 2, fig. 4. From a hole opened in the flue with a pin, a great number of young ones crept out, which had not yet assumed the colour of the mother.

THIS resembled the last species, except in the marks of the abdomen, which represented, as it were, a red flower, of an ovate, acute shape, which in the middle is rather of a greyish yellow. See LIST. de Aran. fig. 12. FRISH. Germ. tom. 10. p. 6. t. 4.

SPECIES VIII.

SPECIES VIII.—A. LINEATUS.

LINED - SPIDER.

ON the first of September, some females were found within the leaves of hawthorn, guarding their eggs, inclosed in a villous glaucous flue. Plate 5, fig. 4.

THE eyes are conspicuous and black. The legs very long, brownish, with the joints marked by greyish dots, and longish hairs. The fore pair are thrice the length of the whole *Spider*. The thorax is ovate, flat, brownish, bright, marked by a dark longitudinal line. The abdomen is ovate, longish, cohering to the thorax beneath, at about a fourth part of its length; it is of a whitish sulphur-colour, scattered over with white hairs.

A LITTLE black longitudinal line, drawn to at least half the length of the abdomen, seems to succeed some little incisures or transverse rugæ, of which the base is black.

A DEEP black line towards the anus is visible, though not very conspicuous. Six remarkable black spots run in an oblique direction towards each side. Four larger black spots surround the upper part of the anus; while the under part between the anus and sexual organ is marked by a broader black line.

THE arms are downy, and of the same colour as the thorax and legs. The holders are brownish, perpendicular, with black claws. The eggs are separate, round, and whitish, about 100 in a bag, the size of a middling pea.

THE young, which are the least of any I have seen, live some time in the bag, after they are hatched; but how long I cannot determine.

SPECIES IX.—A. CELLULINUS.

CELLAR - SPIDER.

ON the 30th of September, one female was found in a dark and moist corner of the cellar, among a heap of things which had been thrown there. Plate 6, fig. 8. It had a great many young ones about it, of which I took about twenty, and as many others made their escape.

Though

Though I do not know the manner in which the *Spiders* of this species make their webs, yet from analogy there can be no doubt of their belonging to this assortment.

THE eyes, which are not conspicuous, are black. The legs long, slender, brownish, and thickly covered with longish hair only. The thorax ovate, brownish, and marked with black, in the figure of a flower-glass. It is covered with fine and thin down. The abdomen ovate, and yellow, has a furrow, marked on the sides with two bright ovate spots, and as many smaller ones on the middle above the anus, the upper one triangular, the lower pyramidal; it abounds with rough hair, especially on the marks. The arms are brownish and hairy. The holders brownish, and perpendicular, without any appearance of down.

S P E C I E S X.—A. BUCCULENTUS.

C H E E K E D - S P I D E R.

ONE female was found on a tree on the first of August, which, though I do not know its manner of weaving, I suppose to belong properly to this assortment. Plate 6, fig. 2.

THE lateral eyes are pretty closely conjoined. The legs, which are only covered with largish hairs, are a little greyish at the joints. The fore and hind pair are the longest, and the two middle pair the shortest. The thorax is ovate, flat, brownish, and hairy. The abdomen almost round, and furnished with obtuse tubercles. It is all over bright, though it abounds with hair, and bears some resemblance to the cheeks of a snake. It is marked by a dark longitudinal line, which is more conspicuous towards the thorax, but less so towards the anus. The tip of the line is terminated by another short transverse one, or spot; then by one large branch towards each side; afterwards by two smaller ones, and lastly by two very small ones, the tips of which decline towards the anus. On each side of this branchy line five little black specks appear, which are smallest next the thorax and larger towards the anus. Besides these, two largish ones of a black colour are seated on each side the anus, so that the whole number of the spots is fourteen. The arms are brownish, and very hairy. The holders brownish, perpendicular, and armed with black claws.

S P E C I E S XI.—A. MONTANUS.

M O U N T A I N - S P I D E R.

OF this species of *Spider*, represented at plate 3, fig. 4. No. 1. I had the satisfaction of observing the whole process of generation, from first to last, about the middle of June. Having first taken all the prudential caution which is used by the *Retiary Spiders* (and which is described by the illustrious DE GEER, in his oration, publicly recited at Stockholm, on the resignation of his office of president, in the year 1754, June 26th) they made their approaches, and united in such a manner, that the anus of the one being applied to the neck of the other, the male could conveniently reach with his arms the lower part of the abdomen of the female. From a small aperture in the abdomen of the female, proceeded a slender whitish body or tube, of almost a line in length, which the male embracing with his sexual organs, protruded from the tips of his arms, compressed with reiterated applications, but with great seeming caution. This operation did not continue long, but was soon succeeded by rest; within an hour, more or less, they united again, but at each time with less seeming fear, and greater familiarity. At length when the whole process was finished, they separated without any remarkable appearance of dread.

FOR the gratification of those who are not in possession of the above celebrated oration of DE GEER, on the Generation of Insects, and who are stationed in situations where it may not easily be procured, I shall here insert as much as relates to the elucidation and confirmation of this matter.

ALTHOUGH DE GEER had himself observed *Spiders* engaged in this process, and found the following experiment probable, yet he has thought proper to quote the solid observations of LYONNET, which are adjoined to the *Theologia Insectorum* of LESSER, in which is contained the description of the nodules, which terminate the arms of the males, or, as he calls them, the antennæ. “ These arms” (says LYONNET) “ are extremely remarkable. Perhaps I shall not easily be believed, if I say that they are the male organs of generation. Yet I may safely assert what I have often seen; and that certain kinds of *Spiders* copulate by these instruments.

struments. These males have smaller thoraxes, but longer legs than the females. The fight of their amours is extremely entertaining. Both meet upon their webs, circumspect, and with measured steps, they stretch out their legs, shake the web gently, and touch each other with the tips of their feet, as if afraid of each other's motion. Sometimes they precipitate themselves through fear, and hang pendulous for a while by their thread; then taking courage again, they ascend, and continue their preludes. After having felt and handled one another a long time, they both approach nearer, with equal caution, and begin to be somewhat more familiar. They now touch each other with greater freedom and boldness, all fear is at an end, and both being prepared, one of the nodules of the male's arms opens, as if by a spring, and displays a white body: the arm incurvated and applied to the abdomen of the female, below the thorax, completes the intention of nature. Were it not known, that *Spiders*, on all other occasions except this, are in a state of warfare with each other, we might, not without reason, be astonished at this strange mode of conducting their amours. But when we consider this circumstance, it appears to be nothing more than a laudable and proper caution and reserve in a matter, in which their lives might be sometimes in danger, and as a warning against rash adventures."

THE two lower eyes in the middle of the forehead, are a little less than the two upper ones: the hinder side-eyes are also less than the anterior, and joined. The size and situation are represented at letter G. The legs are hairy, with dark fibulæ, and black prickles. The thorax ovate, blackish, somewhat slenderer, and carinated towards the lower part, and wider, and flattened towards the abdomen. It is scarce beset with any down, or at least extremely thin. The abdomen somewhat hollowed, more or less blackish, and marked on the sides with brighter spots, more or less undulated, abounds with white down, especially towards the anus. The arms of the male, as represented at fig. 3, as seen by the microscope. A. represents the last joint of the arm, all over hairy on the outer side; on the interior a little concave. F. shews the cell, or large hollow, in which the male organ is generally seated. B. and C. are the instruments, which, at the time of union, are bent and opened, and which impregnate the female. At that time, C. separates from B. and together with C. embraces the small whitish tube of the female, and enters or conceals itself within it. B. is black at the extremity, and inflected like a horn, and coheres as if by a ligament to the exterior part of A. besides the interior juncture. B. is, with regard to the interior extremity near the bright line, clear and pellucid,

pellucid, like a coat or membrane. At the extremity is C. a tubercle seated on the curvature, which I know not whether to call a testicle or not. D. and E. shew the two other hairy joints of the arm. The arms of the female are cylindric, and are harsh, with unequal hairs and prickles. The holders are obtuse, perpendicular, shining, with a fine scattered down upon them, black, and armed with short claws. The eggs are yellowish, separate, small, round, in two or three masses, involved in a slender bag, hung in a web, fixed to a wall, in a dark place. The females constantly guard them, except when they go to seize flies, which are caught in their webs. None of the young, which come out the middle of June, attain their perfect form the same year.

THIS species weaves a web, as thick as that of the former assortment, and as flat. But since these, besides the flat web, throw out threads more or less perpendicular, and are in shape different from the others, I have no doubt but that they belong to this division.

S P E C I E S XII.—A. TRIANGULARIUS.

T R I A N G U L A R - S P I D E R.

THESE copulate the beginning of September. Plate 3, fig. 1. This and the foregoing species might be taken for the same, on account of the similitude of form, and manner of weaving their webs, were it not that other circumstances persuade us to the contrary.

THE two lowermost eyes in the middle, are less and nearer together than the two upper ones. The two side-ones are so close, that they can scarcely be distinguished. The legs are glossy, slender, longish, downy, and furnished with long prickles. The legs of the male are longer than those of the female. The thorax is ovate, rather slender, and carinated towards the anterior part; wider and flattish towards the hinder part, and slightly, or even scarce at all downy. The abdomen bright, hollowed, and marked on the upper part by a sharp white line, and on each side towards the lower part with a small yellowish one. Three reddish marks, which are almost triangular and continuous, occupy the upper flat part, in a longitudinal direction. This flattened part is thinly scattered with soft and very short down. The

arms

arms are guarded with longish hairs and dusky prickles. I had not an opportunity of surveying with a microscope, those of the male. The holders slender, long, pretty prominent, much divaricated, and armed with unusually long claws.

THE webs of this species, abound so much with threads that are perpendicular, and cross them in all directions, that it is difficult to distinguish the flat or proper web from these, as it is very thin; nor yet can the *Spiders* of this sort be properly placed in the following division, or weavers.

THE above webs hardly ever appear flat, but rather with a vertical and transversely situated part, and with large convexities. Other webs are expanded with many minute flexures in an oblique manner. The XIth Species of *Spider*, casts fewer transverse ligaments, nor does it distend its flat web by so diversified an expansion, although it thickens it better than the present species. These two species might not improperly constitute a new genus, or assortment of *Spiders*, if it were thought necessary; but this I leave to the further examination of future observers.

CHAPTER IV.

OF THE THIRD KIND OF WEB-SPIDERS, OR

WEAVERS.

1. THE webs of these *Spiders*, less remarkable at first sight than those of the two former divisions, are in reality still more conspicuous proofs of the wisdom of the Creator. While we view the thick and multiform webs of these animals, some circular, some pyramidal, and of various other appearances, we cannot but be impressed with the highest admiration. I have seen the labyrinth-like flexures of these webs, rising in a singular connection of cones and hollows, to the height of three or four feet, as will be particularized in the following descriptions.

2. If we should call the *Spiders* of this assortment by the name of *flat* or *plain* weavers, it would distinguish them from others with almost sufficient exactness; since their webs, exclusive of their remarkable thickness, have also a flat situation.

3. THESE webs, at first sight, appear to be woven like cloth; but in reality the warp and woof do not cross each other, but are only glued one under the other.

4. THESE *Spiders* are evidently of a very different form, from those of the two former divisions.

5. THOUGH they are truly *Retiary Spiders*, yet they have not the same distinctive characters as the former, but peculiar ones of their own, which are as follow:

1. Two longish tubercles are pointed and prominent beyond the anus. 2. The hind legs are the longest; the rest vary in the different species. 3. The eyes are not concrete or joined.

SPECIES I.—A. DOMESTICUS.

HOUSE-SPIDER.

THIS species is common almost all the year round, in the windows and corners of houses. Plate 2, fig. 10. In the middle of July, I took ten of them in a room, which had two windows. Each of them had a separate web in the corners of the windows, scarcely a quarter of a yard distant from each other. They appeared flat, and were furnished at each extremity with a funnel, where the *Spider* always sat looking for its prey. Their way of life and manner of weaving was the same, wherefore I take them to be of the species described by Linnæus, in the *Fauna Suecica*, ed. 1. n. 1215. ed. 2. n. 2000. The examination of these *Spiders* caused some surprize in me, as they were dissimilar as to colour and marks though of the same proportion as to the length of the legs. The situation of the eyes, in which a few differed a little from the rest, did not seem to constitute a distinct species. These *Spiders* also cast their skin, as I found by four entire and uninjured exuviae or sloughs.

THE eyes are of equal size and black, and placed as at D. The legs were of such a proportion, that the last pair were longest, next the fore pair, then the second, and the third the shortest.

They

They are slender, and clothed with unequal hairs, and a few bristles; the longest pair were twice the length of the whole *Spider*. Some were prickly. All were surrounded by white and black circles, though on the legs of two of them the circles scarcely appeared, on account of the darkness of their colour; and on those of two of them the black circles were scarcely visible, by reason of the light or whitish colour of the leg. On one they were extremely distinct; and on the others moderately so. The thorax ovate, a little flat, in some dark, in some brighter, and in others ornamented with a sort of facula or spot, more lucid than the rest, next to the legs. That represented on the plate was for the most part grey, with a single wave on each side, of a somewhat brighter colour. All of them were glossy, and coated with a thin down. Many long black hairs projected from amongst the down, towards the region of the eyes. The thorax ovate, hairy, with the thoracic juncture seated somewhat beneath. In some the abdomen was slightly dusky; in others a very little lucid, without markings; in some not very distinctly spotted, and one, which is shewn in the figure, had seven yellowish spots, larger towards the upper or anterior parts, a little contiguous, and surrounding a dusky longitudinal segment. Towards the anus the abdomen was of a yellowish red, and surrounded by two long, two short, and two very thin and hairy tubercles. The under surface of the abdomen was in some slightly undulated, and in others not. The sexual organ was surrounded by two whitish spots. The arms of the male ended in a very long point, with a pyramidal nodule, which for about a third of its length was scarce conspicuous. The arms of the female were cylindric: those of both sexes abound with long unequal black hairs and prickles. The holders, more or less blackish, full of long and fine down, perpendicular, and a little divaricated at their extremities. The eggs are very small, separate, round, and white; they are involved in flue. The young came out on the 22d of July, and at their first exclusion were whitish.

S P E C I E S II.—A. LABYRINTHICUS.

L A B Y R I N T H - S P I D E R.

THEY are found from the beginning of spring to the end of summer, every where, especially on the ground, and amongst ruins. Plate 2, fig. 9. The webs, generally flat, are very thick, and have long funnels at the end, where the *Spiders* sit watching for their prey, and from whence they run out very fast on the least motion of the web, in order to see the cause of it. They are terrified at the least appearance of danger, and run back to take refuge in their dens. When their nets are injured by grass, or other plants, they do not forsake them, but repair and enlarge them, rolling them round in the most elegant and matchless circles, three or four feet high, lest they should be in want of prey.

THE eyes are large, and placed in a peculiar manner, as at (*e*). The legs whitish, slender, stiff, with hairs of unequal length, and bristles and prickles. Their length is (as in the former species) in the proportion of 4, 1, 2, and 3. The longest pair are more than double the length of the whole *Spider*. The thorax is ovate, a little flat, brownish, with a longitudinal divided facula or bright part, and covered all over with fine and soft down. The abdomen oblong, blackish, bright, and by a long greyish mark, broken by some oblique transverse lines, resembling the letter I; is easily distinguished from all other *Spiders*. It is covered with unequal hairs, and at the extremity, near the anus, are two longish downy tubercles. The lower part is cinerous, with a dark furrow on each side. The arms are hairy, bristly, and aculeated: those of the male are shewn at fig. 7. The holders are blackish, hairy, perpendicular. See *Fauna Suecica*. n. 1223.

SPECIES III.

S P E C I E S III.—A. PALLIDULUS.

P A L I S H - S P I D E R.

FEMALES of this species were found sitting in close cells, in the middle of July, on trees, watching their bags of eggs. Plate 1, fig. 4. They were unequal in size, and the smaller ones had often a greater number of eggs than the larger.

THE eyes are large; their situation is shewn at plate 2, fig. 10. The legs are short, and thick; their relative proportion 4, 2, 1, and 3. They are more or less brownish, or glaucous, and guarded with unequal hairs, bristles, and prickles. The abdomen long, ovate, more or less glaucous or brownish, and equally downy, is without any markings. Six hairy tubercles surround the anus, of which four are longer, and two shorter. The sexual organ, which is situated beneath, is black, with a triangular or heart-shaped spot of white on each. The arms are hairy, bristly, and aculeated. The holders black, scattered with soft hairs, and nearly perpendicular. The eggs moderately large, and yellowish; some follicles contained only thirty, others 150 eggs. I have not yet observed them in larger masses than these. In one of the masses which I found, several of the young ones were excluded, and some of them were about to come out from their habitation. Letters A. B. and C. shew a young one, which has just broke its tunic, which immediately contracts and withdraws itself towards the anus, and at length falls off. A. the thorax—B. the anus—C. the abdomen. The young, while in the egg, embraces its abdomen with its legs. The figure of the young may be seen in some degree, through the egg, appearing like circles, as at D.

THE females continue with their young in the nests, till they can shift for themselves.

CHAPTER V.

OF THE LEAPERS IN GENERAL, AND OF THE FIRST DIVISION, OR
WOLVES.

1. **THOUGH** the works of the Creator appear to us to be intermixed in a wonderful manner with conveniences and inconveniences (if such an expression may be allowed) and though men frequently, alas! repine at the dispensations of Providence, yet every other animal, even the least, appears to be contented with its lot. Exclusive of the small and dim eyes, which the *Spiders* hitherto described, appear to have, their tumid bellies and slender legs render them less capable of running, or seeking abroad for their prey, but so much the fitter and readier for their various modes of weaving their webs, by which means without care or trouble they obtain a sufficient nutriment. On the contrary, all the *Spiders* which come now to be described, have slighter or more agile bodies, and thicker and stronger legs, by which means they are so much the more calculated for long excursions and great leaps, as they are less so for weaving. With their large and sharp eyes they observe their prey, even when flying about at some distance, and when it approaches nearer, suddenly seize it.

2. **THIS** class of *Spiders* being clearly divided into three assortments, let us first examine, (without disturbing the arrangement of the others) that set, which was called by the older writers, by the name of *Wolves*, and which have the following characters :

1. **THEY** have four large eyes, and as many smaller ones in a right line below them, on the thorax. Of the former, the two outer are bigger than the intermediate ones, and above them, and decline a little towards the side: the other two also are on the side, but nearer the abdomen. See plate 5, fig. 9.

2. **THE** hind-legs are longest; the fore-legs a little shorter; then the second pair; and the third pair are shortest.

3. **THE** females carry their bags of eggs under their bellies; to which the young also adhere after being hatched; being carried about, and fed by the parent, till they are able to shift for themselves.

SPECIES I.

SPECIES I.—A. FABRILIS.

FABRILE-SPIDER.

ABOUT the middle of July, I caught a single female, which had lost one of its legs; notwithstanding which she easily took flies upon the wing; from which circumstance I was in hopes of her recovery: she died however in a short time after.

THE spots placed before the *Spider* in the figure shew the magnitude of the eyes. Plate 4, fig. 9. They are all black.

THE legs are glaucous, strewed interchangeably with bristles and prickles, and abound with long unequal hairs. The thorax is hairy, longish, a little more acuminate towards the anterior part, and rising. On the middle, is a double wedge-shaped spot; and near the abdomen, a lucid facula; and on each side, next the legs, it is bordered with white. Within the wedge and the brownish edge, the thorax abounds on the anterior half with white waves; and towards the insertion of the second pair of legs, is a black oblique mark. The abdomen is oblong, ovate, silky, black below, and brownish above, is marked by a multangular black line, and a narrow lucid border from the beginning of the breast to the middle of the abdomen. It is also variegated by dusky transverse undulations towards the anus, and with five lucid points in a longitudinal direction on each side. Above the juncture, nearest the thorax, is a black V. filled up with greyish hairs, and forming a triangle. The arms are longish, hairy, bristly, and aculeated. The holders black, perpendicular, hairy, with bright spots of hair at the extremities. The claws strong and black.

THE male was discovered soon afterwards, which in all respects, except the arms, resembled the female.

SPECIES II.

S P E C I E S II.—A. ACULEATUS.

P R I C K L Y - S P I D E R.

ABOUT the end of May, a single female was found in a meadow. Plate 5, fig. 9.

THE size of the eyes is shewn by the dots placed before the figure. The legs are all over hairy, and beset here and there with thick shag and prickles. The thighs have two remarkable prickles, which are five or six times as long as the others. The thorax longish, more slender towards the anterior parts, and of a dusky colour, is marked by a more lucid longitudinal wave, and is all over covered with unequal long and thick hairs. The abdomen ovate, dusky, a little brighter towards the thorax, and coated with thick hair of unequal length. The arms very hairy, and scattered thinly with hairs of a thicker nature than the rest.

S P E C I E S III.—A. INQUILINUS.

I N M A T E - S P I D E R.

ABOUT the end of September, a female, plate 8, fig. 5, was found at the edge of a web, made by the *Labyrinth Spider* (CHAP. IV.—SPEC. II.) I kept it a long time, and could never perceive it spinning, but it took flies readily upon the wing, like the other *Spiders* of this division.

THE size of the eyes is shewn by the dots before the figure. The legs are brownish, very hairy, and a little aculeated. The thorax hairy, brownish, a little reddish, of a rhomboid shape, terminating above in a point, and has on each side two blackish bows. The abdomen ovate, brownish, silky, with many transverse black waves, as shewn in the figure, and marked towards the breast, above the middle of the juncture, with a deep black V. somewhat brighter

on

on the inner part. The arms are brownish and hairy. The holders strong, perpendicular, very hairy, and armed at the extremities with black claws, and are of a brownish colour above, and black beneath.

S P E C I E S IV.—A. LIGNARIUS.

W O O D - S P I D E R.

THIS species is found plentifully during the whole month of September, in woods, especially coppices, amongst the brush-wood, and in hedges. It is all over hairy, and variegated. Plate 5, fig. 8.

THE eyes are all black, and of the size represented by the dots in the figure. The legs abound with black hairs and prickles. The thorax ovate, slightly flat, with a narrow longitudinal facula. The abdomen, of a long oval shape, is marked with a longitudinal facula like the thorax.

THE first joints of the arms, nearest the thorax, are covered with black prickles and white hairs; the half of the following ones, nearest the breast, are like the first pair; but those parts of them which are nearest the sexual organ, have stiff black hairs and prickles. The male organ A. is without prickles, but is darkened with black and thick hair. The arms of the females are hairy and cylindric.

THE holders, together with their claws, are black, and abound towards the eyes with white hairs. The eggs are seventy or eighty in number, not glued together, but separate, angular, of a reddish yellow, and contained in a flat greenish bag. In the beginning of June, the young are excluded.

SPECIES V.—A. MONTICOLA.

MOUNTAINEER.

ABOUT the middle of June, I observed the manner of conjunction in these *Spiders*, on the top of a rocky place, exposed to the sun, where several of them were thus engaged. The male and female, after several preludes, by skipping towards each other, presently perceive each others intentions, and leap with slower motion, till at length the male suddenly springs on the female, and placing himself in a somewhat oblique direction, applies the tip of one of his arms to the projecting tube of the female, then the tip of the other arm, and thus alternately, till at length both male and female spring nimbly away from each other. This species is one of the smaller kind of *Spiders*. Plate 5, fig. 5.

THE eyes are as represented by the dots near the figure. The legs whitish, with black spots, unequally long hairs, and black prickles. The thorax oblong, flat, hairy, rather slender towards the fore-part, black, with a whitish line drawn through the middle of the thorax, as it were into the abdomen, and edged with a white border on each side near the legs. The abdomen is hairy, brownish above, and ash-coloured below. That of the male is nearly round, or obtusely oval, and rather smaller than the thorax; that of the female is oblong-oval, larger than the thorax, and slightly undulated.

THE extremities of the arms of the male are represented at B. While they are gently pressed under the microscope, those two little prominences, figured on the inner-part, appear; of which the anterior is red on the outside. The arms of the female are cylindric: those of both sexes are brownish, and have long hairs, bristles, and prickles. The holders are brownish, hairy, perpendicular, and terminate in black claws.

SPECIES VI.

S P E C I E S VI.—A. PULVERULENTUS.

D U S T Y - S P I D E R.

THESE are frequent in dry places, in the middle of June. Plate 4, fig. 7. I did not observe them in conjunction, but as both sexes were skipping about together, I considered them as pairing. This species is rather larger than the former.

THE eyes are situated as in the preceding *Spiders*. The legs are hairy, bristly, and aculeated. The thorax black, ovate, slender, and carinated towards the fore-part, broad and flat towards the hind-part. That of the male is thinly scattered, in patches, with fine down: that of the female, with brownish: that of both is marked towards the abdomen with a somewhat obscure facula. The abdomen ovate, black, filky; that of the male, and that of the female, differ a little from each other as shewn. The arms of the male are furnished with the sexual organs, as at C. Those of the female are cylindric: both are coated with hairs of different lengths. The holders are black, slightly hairy, and perpendicular.

 S P E C I E S VII.—A. PALUDICOLA.

M A R S H - S P I D E R.

IN the middle of June, the females carry their bags under their bellies, plate 6, fig. 3. At other times, they frequent moist places, and the banks of streams.

THE eyes are situated as in the former. The legs are full of hairs, bristles, and prickles. The thorax black, ovate, flat, slender, and carinated on the fore-part; broad and flat on the hind-part, and abounding with black hair. The abdomen ovate, black, very hairy; and on
some

some, a brownish facula, which projected towards the thorax, was visible in the male; which in the female could only be observed in a very few. The arms of the male have four or five prickles, and sexual organs, similar to those exhibited at A. The arms of the female are cylindric, hairy, and without prickles. The holders are hairy, perpendicular, and black. The follicles of eggs are orbicular and flattish, whitish above, and black below; they are also edged on the upper part with a lucid line or future. See *Fauna Suecica*. n. 1219.

SPECIES VIII.—A. AMENTATUS.

LOOPED-SPIDER.

AFTER the middle of June, this species, plate 4, fig. 10, was common, in dry or bare places: towards the end of the month the females carried their bags of eggs about with them.

THE eyes and legs of these are altogether like those of the two species just described. The thorax is blackish, ovate, slender, and slightly carinated towards the fore-part, broader and flattish towards the hind-part. A brownish facula, like a ligament, appears on it, which is somewhat brighter towards the abdomen, and more dusky in the middle: the thorax on the other parts is sprinkled with thin and scarce visible down. The abdomen blackish, all over hairy: that of the male is marked in the middle by a slender brownish facula; that of the female has no such mark, but is distinguished by a fasciculus of whitish hair in a black base towards the thorax. The arms are hairy. The holders dark and perpendicular. The bag of eggs is dusky beneath, whitish above, and of a flattish orbicular shape. Whenever the females, in passing through any narrow place unawares, find their bag of eggs pulled away from them, they dread no danger, but immediately endeavour to recover it, and when they have got it, they carry it into the nearest convenient recess, and replace it, as tightly as before, beneath the abdomen towards the thorax, so as to be conveniently carried; which done, they again resume their journey.

SPECIES IX.

SPECIES IX.—A. TRABALIS.

BEAM-SPIDER.

THIS *Spider*, plate 5, fig. 1, was taken in a meadow, and must be considered as one of the larger sort of this division.

THE eyes, which are of the common structure, are black. The legs all hairy, with many coarse hairs and prickles. The thorax very hairy, of an oblong oval shape, blackish, and marked with a brownish strap, or broad longitudinal line, and with a border of the same colour near the legs. The arms hairy and brownish. The holders brownish, and a little hairy.

PLATE 6, fig. 7, shews another sort, which, whether a variety of the one just described, or a distinct species, I am not able to say. I found one of each sort; the former on the 25th of May, and the latter on the 15th of June. This was like the other in all parts, except the legs, which in this were scarce fasciated.

THE thoracic ligament was brown, and situated at about the third part, near the abdomen. A brownish oval sharp-pointed spot was conspicuous on the abdomen.

SPECIES X.—A. CUNEATUS.

WEDGE-SPIDER.

THIS was found about the end of May, amongst grafs. Plate 5, fig. 2.

THE eyes as usual. The legs hairy and bristly, with one or two prickles. The thorax ovate, dusky, marked on the upper projecting part with a whitish strap or line, which is broad and hairy, and sprinkled with various longer hairs looking towards the eyes. On the

N

edge

edge, next the legs, is a whitish margin. The abdomen ovate, pretty uniformly hairy, is extremely well distinguished from other species, by a black longitudinal wedge, furrounded by a white border. The wedge is obtuse towards the anterior parts, and sharp towards the anus. A fasciculus of long hairs on the upper part, gives the resemblance of a V. where the abdomen joins the thorax. The V. itself is composed of black hairs, whitish on the inner part. The arms have hairs of an unequal length, and some prickles. The holders are like the arms.

S P E C I E S XI.—A. UNDATUS.

W A V E D - S P I D E R.

ONE species of this was found in low grafs in the beginning of August. Plate 7, fig. 3.

THE eyes as usual, strongly furrounded with hairs. The legs very hairy, and aculeated. The thorax obtuse, ovate, brownish, flat, filky; with blackish hairs about the eyes, and a greyish line on each side above the feet. The abdomen ovate, brownish, filky, with a greyish wave furrounding the sides. The arms hairy, and sharp pointed. The holders smallish and hairy.

S P E C I E S XII.—A. NIVALIS.

S N O W - S P I D E R.

A MALE was found, the middle of September, plate 7, fig. 8, and since I have not hitherto observed any female of this kind answering to it; I have no doubt of its being a distinct species.

THE eyes as usual. The legs hairy, and of the usual structure. The thorax rhomboid, or lozenge-shaped, rising, with a broad white point, and two white spots, towards the eyes,
and

and with black sides, marked next the legs with a greyish line. The abdomen longish, ovate, hairy; for the most part white above, marked with two white dots, near the thorax; beneath greyish, with blackish sides. I nourished this *Spider* for some time, till at length it made its escape, from a hole in the box in which it was kept, and which I had forgot to close after feeding it: hence it is not in my power to describe particularly the arms and holders.

S P E C I E S XIII.—A. PIRATICUS.

P I R A T I C A L - S P I D E R.

ON the 10th of June, I took with much difficulty one of these, amongst rushes in a water, where it was seeking for prey, in company with many others. I afterwards looked for more of the same species in the same place, very often, but in vain. Whether a windy season, or a rainy one was the cause of their absence, or whether the usual period of their coming there had expired, I cannot tell. Plate 7, fig. 7.

THE eyes as usual. The legs very hairy, bristly, and a little aculeated. The thorax almost of a rhomboid form, broken off, or abrupt, as it were, at each end. It is marked in the middle by a brownish facula of a slender form, and which runs first into a sharpened blackish mark, and then into a very deep black. It has also a white lucid margin next the legs; and has also a quantity of long hair of a dark colour upon it. The abdomen ovate, blackish, with long hair, a white border on each side, and six whitish dots, in a double series, on the upper part. The arms are furnished with longish thick hair. The holders are hairy.

SPECIES XIV.

SPECIES XIV.—A. PISCATORIUS.

FISHING-SPIDER.

ON the same day, with that above described, I saw this, which is represented at plate 11, fig. 9. It was running in the water, not far from the brink.

THE eyes like those of the former kinds. The legs with long unequal hairs, thickly placed. The thorax nearly round, or of an obtusely oval form, very much depressed or flattened, nearly black, and edged with a greyish border next the legs. The abdomen obtusely ovate, black, very hairy. The arms and holders hairy.

SPECIES XV.—A. FUMIGATUS.

SMOKY-SPIDER.

FOUND among grafs, the middle of July. Plate 8, fig. 3.

THE four intermediate eyes are smallish, the four upper ones rather large; as represented by the specks in the figure. The legs very hairy, bristly, and aculeated. The thorax ovate, hairy, smoky, and marked with white, in a continued longitudinal series. The abdomen obtuse, ovate, smoky, with brownish transverse waves; near the thorax, black, with two fasciculi of white hair, and two lucid specks above them; very hairy, with some remarkably long hair scattered amongst the rest. The arms hairy, as well as the holders.

SPECIES XVI.

S P E C I E S XVI.—A. PULLATUS.

R U S S E T - S P I D E R.

FOUND in low grafs, the middle of May. Plate 8, fig. 6.

THE eyes rather small, ruddy. The legs brownish, full of unequally long hairs. The thorax obtufely oval, black, with fhort fhining thick hair. The abdomen of the fame shape, black, fhaded with fhort and gloffy hair, in the manner of filk; many hairs projecting beyond the reft, over the whole; beneath it is brownish. The arms brownish, with unequally long hairs. The holders brownish, downy.

S P E C I E S XVII.—A. PLANTARIUS.

P L A N T - S P I D E R.

ABOUT the middle of September, two females were taken together on fhruvs. Plate 8, fig. 2.

THE eyes gloffy, cherry-coloured. The legs green, with blackish fpots, and unequally long hairs, bristles, and prickles. The thorax extremely hairy, nearly rhomboidal, flightly rounded, blackish on the middle, declining into green towards the fides, next the feet. The abdomen oblong, greenish, filky, tinged with a dirty blackish colour, and marked above by twenty-four white dots, difpofed four ways, of which the outward feries on each fide, of eight dots, runs the whole length; the other eight dots, numbered from the anterior parts, ftand in pairs, between two longitudinal lines, oppofite the 4th, 5th, 6th, and 7th dots. The lower furface is fmoky, marked alternately with three flender and two broader lines of a blackish colour, and is marked on all fides with fuliginous and greyish waves, not very conspicuous. The arms are fmoky; and have diffimular hairs, bristles, and prickles. The holders are blackish.

S P E C I E S XVIII.—A. FIMBRIATUS.

F R I N G E D - S P I D E R.

ONE male, plate 9, fig. 4, was taken in the middle of May, leaping as quick as lightning.

THE eyes as usual, and black. The legs vary from the characters assigned to this assortment in the beginning of the work. They are so disposed as to shorten in the proportion of the fourth, second, first, and third pair. The first and third scarce differ in length. The first, second, and third legs are hairy on the two last joints; on the third, both hairy and bristly; but on the fifth, or thigh, not only hairy and bristly, but furnished also with three large prickles, two on the upper, and another on the lower side. Of the fourth pair all the joints are hairy, bristly, and prickly, except the last of all, which have hairs only. The thorax nearly of a rhomboid shape, flat and blackish; with a white border next the legs, with very soft down, and various longish hairs projecting towards the eyes like horns. The abdomen longish, ovate, blackish; with thick unequal hairs, a white margin on both sides, and a fasciculus of rough hairs, or bristles near the breast. The arms and holders with somewhat unequal hairs.

S P E C I E S XIX.—A. MIRABILUS.

W O N D E R F U L - S P I D E R.

THOUGH men, to the assistance of fallible memory, have, with the greatest care and pains, invented systematic rules, in order the better to comprize and understand the innumerable works of the CREATOR; yet it is impossible to ordain these rules, so as to be free from exceptions. This is a proof of the power and greatness of God, who has, according to his own unerring

unerring wisdom, stationed all objects in a certain mode of arrangement, yet in such a manner as far exceeds our comprehension. Of this the insect now to be described is an instance. Plate 7, fig. 1.

It is found common on trees, during the whole month of June, and is generally of a brownish colour, though some few individuals are much darker.

The eyes differ from the usual position, the two last of the first series being very large, and the two intermediate ones very small. The two lateral ones are scarce less than the very large ones of the first series. This proportion of the eyes is represented by the dots in the figure. The legs are extremely long, and different from the other insects of this division, since they shorten in this proportion, viz. 4, 2, 1, and 3. Between the first and second, the difference is not remarkable. All the joints are long and slender, and have hairs, bristles, and prickles of unequal lengths. The thorax ovate, hairy, somewhat flattened, brownish towards the edges, with the middle greyish, and a lighter line running through it. The abdomen longish, ovate, hairy, in some more, in others less undulated, with a sinuous bright line. The upper part is brownish, though marked by a somewhat obscure facula, and some white scattered dots, which are more numerous in some, and less so in others. In some, the abdomen is without any dots. The inferior part has a brightish wedge or mark. The arm of the male, with the sexual organs, is represented at fig. 2, where it is shewn projecting from the globular part, at B. and C. which two parts are usually concealed in the globular one, and when necessary, are projected or exerted as the figure shews. When at rest, or withdrawn, the tip of the arm has a somewhat pyramidal form. In the extremity of the second joint, or that succeeding the above described one, a thick and strong apex, or process, resembling a cock's spur, appears, opposite which, on the upper side, stand two large prickles, and two or three on the part nearest the thorax. The whole arm is also covered with hairs of different lengths, as well as prickles. The holders have thick and unequally long hairs.

The female differs extremely in one respect from the others of this division; since she makes a thick cell in the tops of trees, with the funnel turned upwards, in which she resides. This species is extremely timid, and at all times ready for escape, when disturbed. It seems to be capable of distinguishing the natural motion of the branches, caused by the wind, from
that

that which is caused by the hands in endeavouring to take it; since it instantly takes to flight, and disappears; hence it happened that I was some considerable time before I could collect sufficient specimens. The female collects her eggs into a thick round bag, of a greyish colour, the size of which is represented by the ring, at fig. 1. This bag is not fastened to the sexual organ, as in other females of this division, but is entirely separate, and kept close to the thorax, by means of the arms. It is however no hinderance in running, the length of her legs preventing it from striking against any obstacles in her way. The follicle, or egg-bag, is preserved with as much care as her life: I never saw her hunting after food while she carries it: it contains about 150 eggs. The young come out at the end of July; they have dark thoraxes, with a lucid longitudinal line; and their abdomens are dark, with three small lucid rays towards the thorax: their legs are whitish, with conspicuous prickles on them. The young run about in the nests, and do not adhere to the back of the mother, as most others of this division do.

HAVING often seen these *Spiders* catch flies upon the wing with great swiftness, I doubted whether they made any webs; but having kept a male several days without food, I found him weaving a web of a particular form. He fastened a little net to the side of the place where he was confined, in form of a bag, whereof the circumference of the aperture exceeded the height about ten times: across the aperture ran in a confused manner some thick threads: the bag was placed in a plane nearly opposite to the air, was narrower towards the bottom, and ended in flue. The *Spider* did not live in this web, but walked at large about the sides of the place where he was, seizing on the flies, both on the wing, and entangled in the web.

CHAPTER VI.

OF THE SECOND KIND, OR DIVISION OF LEAPERS, OR
PHALANGIA.

1. I HAVE placed the *Phalangia* before the *Cancriformes*, because they are more numerous and more regular.

2. THE only certain character of this division is the situation of the eyes in a *parabola*. Those in front are the largest; next come the second, somewhat less; the third pair is the smallest; and the hindmost pair are rather less than the second. *See the figures.*

3. THERE is no certain rule for the length; see the lines in the figures, wherein the first gives the length of the fore legs, and the last that of the hind ones.

4. THESE *Spiders* have the power of bending the thorax very much, and very easily to either side, which those of the other divisions cannot do. They leap frequently with great lightness, like fleas or grasshoppers. Most of them draw a thread after them, and which they can fix either to themselves or to any thing else, or lengthen or shorten at pleasure with wonderful facility.

S P E C I E S I.—A. HASTATUS.

H A L B E R D - S P I D E R.

FROM the middle of July to the height of autumn, these are found sitting on the branches of the Scotch fir (*Pinus sylvestris*, *Lin.*) first watching their eggs, and afterwards their young. They are seated amongst threads or flue pretty nearly or closely placed. Plate 8, fig. 7.

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THE eyes are black, between which and the holders runs a line with chalk-like hairs. The legs, which are dusky, shorten in the proportion of 4, 1, 2, and 3. They are furnished with brownish marks, and with unequally long white hairs, and some brown ones. The thorax ovate, greenish, flat, filky, with a facula near the abdomen. The abdomen oblong, ovate, joined to the thorax, at a fourth of its upper part; covered with two sorts of hairs, of which the shorter are closely set, but the longer are scattered, and project like bristles. The upper surface is brownish, and remarkable for having a longish facula of a yellowish colour, and shaped like a halberd, while the edge or side is marked by a flame or wave of the same colour. Both sides are cinereous near the anus, which is blackish. The arms are brownish, and have white hairs of different lengths. The holders are black, and perpendicular.

S P E C I E S II.—A. Muscosus.

M O S S Y - S P I D E R.

FOUND, the beginning of September, in a hedge. Plate 8, fig. 4.

THE eyes glaucous, and shining like polished steel. The legs thick, short, hairy, and prickly, marked with numerous circles. The proportional length of the legs is 4, 1, 2, and 3. The thorax rhomboid, covered with unequal thick hairs, grey or glaucous like moss on old hedges. The abdomen oblong-oval, hairy, and glaucous like the thorax, with two smoke-coloured longitudinal waves. The arms hairy, with numerous circles. The holders black, with blackish claws.

SPECIES III.

S P E C I E S III.—A. SCENICUS.

S C E N I C - S P I D E R.

THIS species is very frequent towards the end of summer, in hedges. Plate 6, fig. 1.

AMONGST ten specimens scarcely one male was found. The male and female are alike in every thing except the arms, which distinguish the sexes.

THE eyes cherry-coloured, glossy. The legs short and strong, with unequally long hairs, and black and white circles. Their relative proportions 4, 1, 2, and 3. The thorax rhomboid, black, glossy, with long and thick hair, and a white margin next the legs, besides three spots of a white colour and triangular shape.

IN some there is a star instead of the spots, or even two small lines crosswise, but mostly very obscure.

THE abdomen ovate, black, with unequal hairs, with three broad, oblique, lucid, white lines on each side, making angles or partitions where they meet in the middle; but towards the anus are two very small ones. The abdomen being perforated with a needle, I easily discerned the tubercles: they are five in number; the two lowermost, in proportion to the *Spider*, are very large. The two intermediate ones rather less; the fifth or uppermost, very short and thick. The arms nearly white, and hairy. The holders black.

SPECIES IV.

S P E C I E S IV.—A. STRIATUS.

S T R E A K E D - S P I D E R.

ONE female was caught, the beginning of August, by a hedge. It is represented of its proper size, at plate 6, fig. 5, and magnified a little, in order to make it plainer, at B.

THE eyes cherry-coloured, very glossy, with a lucid margin. The proportional length of the legs, 4, 1, 2, and 3. They are furnished with many long and short hairs, and prickles, and with brown and light-coloured circles. The thorax rhomboid, hairy, marked on the anterior part with an inconspicuous black cross, next this with a white spot; then with a dullish black crescent, acuminate towards the anus; and in the concavity towards the abdomen, with a longitudinal slender wedge-shaped facula, which grows blackish as it approaches the abdomen. The abdomen ovate, brownish, hairy, with a cuneate longitudinal segment, and with spots, or whitish rays, in a blackish base, and declining towards each side. The arms black; with the joints surrounded with white hairs. The holders black. The eggs seven in number, of a moderate size, but somewhat small in proportion to the female, separate, round, yellowish, involved in a thin web.

S P E C I E S V.—A. TEREBRATUS.

A U G E R - S P I D E R.

IN the beginning of August, this species copulated, plate 9, fig. 2, in the same manner as the Vth Species of the *Wolves*. It is of the same size with the preceding species.

THE eyes are cherry-coloured, with a lucid border. The legs, which are in the proportion of 4, 1, 2, and 3, have hairs, prickles, and numerous circles. The thorax flat, rhomboid,
black,

black, filky, with a lucid marking representing the figure of an auger below, and above of a trident with greyish hooks. The abdomen ovate, black, marked longitudinally by a very bright slender line, at the upper end of which two short white little lines project; at the other end four little transverse white lines longer than the upper ones appear, which tend a little downwards. The superior of these lines is the longest; the 2d and 4th, a little less, and both of the same length: the 3d is very short. The arms black, and abounding with circles of hair.

SPECIES VI.—A. V. INSIGNITUS.

DOUBLE Ψ. SPIDER.

THIS, which is of the same size with the two former, was caught in the middle of May, at the foot of a mountain, in low grass. Plate 7, fig. 6.

THE eyes are emerald-colour, very glossy. The length of the legs could not well be determined, of which however the 3d and 4th seemed to be longer than the 1st and 2d. The thighs of all were greyish, the other parts black, except the joints, which were slightly marked with white. The legs were covered with unequal hairs and prickles. The thorax rhomboidal, black, and hairy, with a double V. between the eyes (Ψ,) and a whitish line on each side next the legs. The abdomen ovate, hairy, black, with a white longitudinal line, which is sometimes yellowish, or reddish. As well near the breast, as about the anus, were some longish hairs which projected there, like a fascicle, or beard. The inferior surface of the abdomen is entirely whitish or greyish. The arms hairy and greyish.

S P E C I E S VII.—A. V. INSIGNITUS.

S I N G L E V. S P I D E R.

THIS species was found in low grafs, near ftones, in the middle of May. Plate 8, fig. 1.

THE eyes blackifh, glossy. The legs with unequal hairs, bristles, and prickles: the four posterior ones are longer than the anterior ones; I could not exactly determine their proportions. The thorax ovate, flat, hairy, fmoke-coloured, flightly inclining to reddifh; with five white dots on the upper part, and between the eyes a greyifh mark rather inconfpicuous, refembling the letter V. The abdomen ovate, fmoke-coloured, flightly reddifh, filky, with ten white fpecks, in a double feries; the firt very large; the laft fmall. At the anterior extremity of the abdomen, near the juncture, is a fomewhat rifing or projecting circle of thick hairs, the points of which turn towards the anus. The arms brownifh, with white unequal hairs.

S P E C I E S VIII.—A. FLAMMATUS.

F L A M E D - S P I D E R.

THIS *Spider* was found, the beginning of Auguft, on bufhes. Plate 11, fig. 8.

THE eyes blackifh, glossy. The hind legs are the longeft, next the third pair, then the fore legs, and laftly the fecond pair: they abound with unequal hairs, and with brownifh and fmoke-coloured circles. The thorax rhomboid, flat, blackifh, filky, with various brownifh hairs, which give the appearance of obfcure rays or flames. The abdomen heart-shaped, a little flat, filky, black; with thick-fet brownifh hair, giving the appearance of oblique rays or flames, with a greyifh border, furrounding the fuperior part of the abdomen. The lower furface is fmoky, or even cinereous. The arms black, with white hairs furrounding the joints. The holders black, with thin white down towards the eyes.

SPECIES IX.

SPECIES IX.—A. FALCATUS.

SICKLE-SPIDER.

COMMON, the beginning of June, amongst low grafs. Plate 7, fig. 4.

THE eyes of a blackish red. The fore legs the longest, next the hind legs, then the third pair, and lastly the second. The thorax rhomboid, flat, hairy, with two brown dots towards the anterior part, and two white falciform bows near the anus. The abdomen ovate, brownish, hairy, with a greyish margin, and a sharp pointed blackish shade near the thorax. The arms with many unequal hairs.

SPECIES X.—A. ARCUATUS.

BOWED-SPIDER.

FOUND, the middle of June, among low grafs. Plate 10, fig. 1.

THE eyes brownish, with a glossy redness. The legs in the same proportion as the former. The first leg has this particularity, *viz.* the last joint is very short and slender, the second scarce thicker; but the third longish, thick and strong; and the thigh still stronger and thicker; the second leg is of a similar structure, but the third and fourth legs are of the usual form. All the legs are covered with unequally long hairs, bristles, and prickles, but the first pair more so than the rest. The thorax ovate, flat, black; with hairs of dissimilar appearance, white and longish round the eyes, like eye-lashes, and below the eyes, between the holders, is an arch or circle of the same sort of hairs. The abdomen was without any markings; for which reason I have given this *Spider* a name, taken from the marks on the thorax. The thorax ovate, black, with unequal long hairs. The arms the same, but with a few white hairs on the joints. The holders black, very prominent, with white hairs. The eggs about twenty, small, cohering, involved with soft flue.

SPECIES XI.

CHAPTER VII.

OF THE THIRD GENUS OR DIVISION OF LEAPERS, OR

CRAB-SHAPED SPIDERS.

1. **T**HE most common and convenient mark of distinction for this division of *Spiders*, I take to be this, *viz.* that they either make no webs, or differ from those of the other two divisions in the situation of their eyes.

2. OF the seven species which I have collected, five certainly have their eyes placed triangularly; but because the two others vary a little from that form, it cannot be taken as a certain character, till the exotic *Spiders* of this division shall have been examined, and collated with ours; when, after proper observations made, the notes or characters given may be either received or rejected.

3. THE respective length of the legs cannot be taken for a certain mark, but may be seen by the lines drawn with the figure of each species.

4. OUT of respect to former authors, I retain the old names of *Spiders*, both in this division, as well as in the former; I do not however contend for their propriety, but leave it to the opinion of the candid reader.

SPECIES I.

S P E C I E S I.—A. VATIUS.

BOW-LEGGED-SPIDER.

THOUGH this *Spider* bears no very great similitude to the shape of a crab, yet it seems to have a better claim to that title than any of the rest; wherefore it may stand as the first or chief species in this division. Plate 11, fig. 5. I have found it on leafy trees, and about ruins, during the whole month of June; sometimes of a greenish yellow, and frequently white or yellow. See *Fauna Suecica*. 1218.

THE eyes taken all together, make out the figure of a small shelving, citron-coloured triangle, as the dots in the figure shew. The legs are thus proportioned, viz. the first pair longest, then the second, then the fourth, and lastly the third. The two first are nearly twice the length of the two last. All of them are yellowish towards their extremities, with black claws. Near the thorax they have small black scattered hairs; but towards the extremities have larger hairs, together with prickles; especially on the interior side of the two anterior legs, and on the last joint but one. The thorax ovate, flat, with scarce any vestige of down. The abdomen nearly globular, with many rugæ, plicæ, and striæ, running in an oblique direction over it. On the upper part in the middle, near the thorax, appears a deep cavity, marked with a black dot. To this succeed two other very slender ones, and more apart; and beneath these are two others still more separated. The lower surface is very hairy, but on the upper part very slightly so. The arms are brownish on the last joints, but blackish at the tips, and have small thinly scattered prickles. The holders are milk-white.

S P E C I E S II.—A. MARGARITATUS.

P E A R L - C O L O U R E D - S P I D E R.

OF all the *Spiders* I have seen, this is a species the least unpleasing to the eye. The general title of this division applies to this species, as well as the former. It is not one of the largest size, but it is one of the handsomest, and is easily found, at about six in the evening, in the month of June, about hedges. It is of a uniform colour. Plate 11, fig. 1.

THE eyes are black, and of a triangular shape. The legs are in the proportion of 2, 3, 1, and 4; they are white, with two black claws, and are covered with confused specks, and with many hairs, bristles, and prickles. Some of the hairs are black, others white, and several have the inner side white, and the outer black; thus causing an agreeable diversity. The thorax nearly round, though slightly flat; almost entirely covered with hairs, which are more lucid in the middle part, and black towards the legs. The abdomen flat, nearly round, but with the neck, or part near the thorax, pyramidal: all over hairy. Its colour is a composition of black and white, so mixed as to produce a most elegant pearl-colour over the whole animal. At the extremity of the abdomen, and especially in the female, two lucid cavities appear, which are marked with two black specks, as in the figure. The arms of the male have obtuse and downy globules (see A.) and the exterior side of the second joint is very hairy, as well as the tubercle or globule. The arms of the female are cylindric, and abound with hair; with many prickles round the joints. The same elegant pearl-colour appears on these as on the other parts of the animal. The holders have many ash-coloured hairs, and are furnished with black claws. I have fed several of these *Spiders* with flies, but they did not seem very fond of them: they liked the *Aphides*, or Plant-lice, better, though these did not seem to be their proper food. On the 7th of July, I observed the females laying their eggs, covering them with a thin web, and continually standing over them. They are separate, round, and as represented at B. One female lays about 100. The young come out about the end of July.

SPECIES III.

S P E C I E S III.—A. AUREOLUS.

G O L D E N - S P I D E R.

THESE were found, the middle of July, on the tops of trees, fitting upon their bags, and guarding them within a vestibule of scattered threads. Plate II, fig. 4.

THE eyes are placed in a triangular form; the lowest are smallish, and the four upper rather larger. The legs are in the proportions of 2, 1, 3, and 4. They are whitish, with red joints, and have many unequal hairs, bristles, and prickles. The thorax ovate, slightly convex, all over silky; with a facula running through the middle, and a white inconspicuous border near the legs, which is brighter near the abdomen. The abdomen ovate, silky, and has a wedge, or mark of brown, surrounded by a lucid border, somewhat obscure towards the anus: to this succeed two flames or waves, which end in a crimson border, with which the upper part of the abdomen is terminated. The abdomen on its under part is greyish, with a cinereous longitudinal segment. The arms whitish, with smoke-coloured joints, and furnished with black hairs, bristles, and prickles. The holders brownish, perpendicular, with a fine white down. The eggs about forty or fifty in each mass, moderately large, round, grey, especially towards the time of hatching. The young, which come forth about the beginning of the dog-days, are somewhat dark at first.

S P E C I E S IV.—A. FORMICINUS.

A N T - S P I D E R.

ABOUT the middle of June, one female was caught, near an ant-heap, at the foot of a hill. Plate 10, fig. 3.

THE eyes are black, and placed in form of a triangle: the four intermediate ones very small, the two outer ones rather larger, and the two remaining ones very large; as appears
by

by the dots in the figure. The proportional length of the legs is 4, 2, 3, and 1. They are glaucous, and are all furnished with hairs, bristles, and prickles. The thorax ovate, silky, ash, or pearl-coloured, with white hairs, and an inconspicuous facula on each side. The abdomen ovate, silky, ash, or pearl-coloured, with a black wedge next the thorax, stretched almost beyond the middle, towards the anus, broader in the middle than at each end, and edged with a white border. The holders of a pearl-colour, with hairs, bristles, and prickles. This female laid about one hundred round yellow eggs, which were involved in a contiguous covering; but no young were hatched from them; either on account of the parent not having been impregnated, or else because the *larvæ* of ichneumons, which crept out from the abdomen soon after she had done laying, had rendered them abortive.

S P E C I E S V.—A. CRISTATUS.

C R E S T E D - S P I D E R.

ABOUT the middle of June, I caught two females of this species, plate 10, fig. 2, neither of which laid eggs, though I kept them both to the end of September. In the middle of August, one of them spun a small web, like a scale, as thick as paper, in a corner. It died on the 30th of August.

THE eyes are black, and in a triangular form: two of them are large in comparison of the rest: the two last, which are situated in the upper corners of the triangle, are very small: the four intermediate ones scarce bigger; as the dots in the figure shew. The proportion of the legs is 1, 2, 4, and 3. They are grey, and have hairs, bristles, and prickles. The thorax rhomboid, flat, brownish, but with a red cast: with two greyish lines swelling out, and meeting near the anus; it is also scattered over with short thick down, and with black prickles. The abdomen, which is joined to the thorax, at about a third of its length, is nearly round, except that a pyramidal point intervenes near the thorax. It is brownish, and striated or wrinkled; it has fine down, and a lucid marking, like a little crest: towards the sides it is reddish. The aperture is situated more within the dusky inferior surface. The holders are whitish, and have hairs and prickles.

SPECIES VI.

S P E C I E S VI.—A. ROSEUS.

R E D - L I N E D - S P I D E R.

ABOUT the middle of June, a single male was found, amongst low grafs. Plate 9, fig. 9.

THE situation of the eyes can scarcely be termed triangular, as will appear from attending to the dots in the figure. All of them are of the same size, except the two outward ones of the lower series, which are somewhat bigger than the others: they are all black, with white borders. The proportions of the legs are 4, 2, 1, and 3. They are greenish, with two black claws, and with dissimilar thick hairs, bristles, and prickles. The thorax ovate, flat, hairy; of a greenish yellow, and with the border on each side yellowish. The abdomen ovate, sulphur-coloured, all over hairy; with a rose-coloured line through the middle, and on each side. The arms of a yellowish green, with many hairs, bristles, and prickles. Fig. 8, letter B. shews the tuberos knobs at the arms of the male, which are brownish and hairy. C. shews the aculeus, or point, which is blackish, and very large. A. shews the joint next the thorax, which is of a peculiar form, and is better understood by viewing the figure, than by any verbal description. The holders are of a yellowish green, with very long, soft, scattered, black hairs.

S P E C I E S VII.—A. VIRESCENS.

G R E E N - S P I D E R.

THE species hitherto treated of in this division, are of a middling size; the *Green-Spider* now to be treated of, is of the largest, though not quite so big as some in the first genus or set. It has not the same appearance with its congeners; but since it makes no web, it comes in most properly amongst these, and cannot so well be placed amongst the *Lupi*, or the *Phalangia*.

In the beginning of June, I found one female at the top of a tree, leaping with great quickness. Plate 10, fig. 5. I kept it till the 18th of July, but was not so fortunate in all that time, as to find any males. During the time of my keeping this *Spider*, I had opportunities of observing its manner of eating. When she was taken, a fly was perforated by the claws of her holders or claspers (see letter A. fig. 4.) whilst she chewed it by means of the jaws placed between them. It appeared plainly how she held and turned the fly, by means of her arms (B), while she drew out the claw of one of the holders to fix it in another place. The jaws, situated below and between the holders (C) were furnished with little hooks or teeth, in a semicircular form, to tear and chew the food. She seemed to have the power of changing the situation of these teeth, from which circumstance they might not improperly be called by the name of claws. The black orifice (D), below and between the jaws, is the gullet; out of this, which received the juices of the fly, a fluid bubbled up; when the fly was about two thirds eaten, all the above motions were with still greater ease and pleasure observed; and when the victim was nearly consumed, they were extremely plain. The *Spider* then cast away the juiceless remains of the fly, as one would the bones of a bird.

AFTER this the animal licked the tips of the arms, first one, then the other, catching them by the claws of the holders, and drawing them into the mouth, where by diligently wiping them both with the jaws and the claws of the holders, she at length perfectly cleaned them; the process being facilitated by the afflux of a fluid, which from time to time arose from the mouth.

On the 19th of July, I found two other females, each of which had weaved together three leaves in a triangular form, in which to place her nest, which was composed of a thick web; while the eggs were involved in a still thicker one.

THE eyes are situated as the dots in the figure. The proportions of the legs, 2, 1, 4, and 3. They are green, and abound with hairs of a black colour, and also with bristles and prickles. The thorax is ovate, flat, green, with a fine down, and a slender greyish border on each side near the legs. The abdomen ovate, green; with thickly scattered white dots above, and also a wedge-like mark without dots: beneath it is black and squarish, with a spot on the part where the sexual organ is seated, and between that and the anus, with four dusky longitudinal lines. The arms greenish, with black hairs, bristles, and prickles. The holders,

holders, greenish, perpendicular; with black hairs, and blackish claws. The eggs are about one hundred and forty in number, round and greenish, with white circles on one side. The young are excluded about the end of July. It is represented of its proper size at fig. 5, and slightly magnified at fig. 4.

CHAPTER VIII.

OF THE SECOND TROOP OF SPIDERS, OR WATER-SPIDERS.

HAVING hitherto found but one species of these, I cannot give their generic characters, or any other mark besides their being generally in or under water.

THIS *Spider* may easily be found in the middle of May, plate 9, fig. 6; and when it stands motionless on the surface of small lakes or ponds, may easily be taken in a fine net, with a brisk or quick motion. Sometimes they are taken with much less trouble than at other times.

THE eyes are placed in a double series: the four upper ones are twice as large as the intermediate ones. The two intermediate ones are placed together, as the spots in the figure shew. The length of the legs is 1, 4, 2, and 3. They are dusky, and have unequal hairs. The thorax is brownish, bright, with fine hairs towards the eyes. The abdomen a little oblong, glaucous, and, as it were, silky with fine down: it has four incisures marked with black dots. When this *Spider* is in the water, the abdomen appears like quicksilver, or polished steel. This shining appearance proceeds either from an inflated globule surrounding the abdomen, or from the space between the body and the water, arising from its repulsive force, by which the water cannot approach nearer than two lines. This is, indeed, very evident; for the *Spider*, when wishing to inhale the air, rising to the surface of the water, with its thorax still plunged in the water, but the abdomen with its tubercles, rising just to the surface, or a little above it, opens and briskly shakes the tubercles; and during this operation, it clearly appears that a deep cone of air surrounds the abdomen, and keeps the water from approaching it, or that the water, on account of the repulsive power of the abdomen, cannot collapse and wet it.

THOUGH

THOUGH this observation clearly shews, that the *Spider*, thus inhabiting the water, lives by means of air, yet there is no reason for denying it the title of *Water-Spider*, as several circumstances demonstrate.

I MUST remark that this *Spider*, which comes up for air four times in an hour, or oftener, gave me an opportunity of observing it for many hours together, by which means I discovered that this refrigeration, or respiration, was not necessary so frequently as the *Spider* practised it, and that it can, as I have good reason for supposing, continue without it, for several days together.

It may also be proper to remind my readers of the nature of the *Aërial-Spiders*; and as from this observation the necessity of respiration, as well as the part conducting it, being very apparent, must beg permission to observe, that the threads which are emitted, sometimes from one tubercle, sometimes from another, and sometimes from several together, are drawn out in the manner of mucus from the human nostrils. Considering likewise the faculty which this *Spider* possesses, of shutting or opening any particular tubercle, or, as I think it may be more properly termed, *Spiracle*, as also the power of receiving and emitting thread at pleasure, through this or that aperture, and lastly the continuity of the substance itself; it follows, that these *Spiders* are spinners, and possess that power in a high degree.

I AM the more persuaded of this, from the circumstance of their being able to retract a recent or just emitted thread, but not an old or dry one. Could I pretend to the name and character of an experienced naturalist, perfected by a long series of experiments, I might expect a greater degree of attention to this theory of mine. At present it is submitted to the farther and better judgment of others.

THE tubercles, or spiracula, are four in number, and while the *Spider* raises them for the purpose of refrigeration or respiration, so as to project above the water, they seem larger or more conspicuous, a little opened or separated from each other; at other times they are contracted and obscure. The arms of the male, as appears from the figure, are shaped like a gunpowder horn or flask, with a small one in its concavity. Those of the female are cylindric: those of both are long and hairy. The holders are largish, strong, blackish, bright, a little prominent and divaricating, and have thin scattered hairs, and strong, brownish, glossy hooks or claws. I found one male and ten females, which I put into a glass filled with water, in hopes of being able to observe their manner of breeding, or at least their battles,
which

which I imagined not unlikely to happen, considering the voracity of the animals; but contrary to my expectation, they lived together very quietly for the space of eight days, without any aliment, so far as I could perceive. I also put some duck-weed (*lemna*) into the glass, as these *Spiders* are fond of taking refuge underneath it. On the 9th and 10th days, the females began to stretch threads from the *lemna* to the sides of the glass, at about a third of the height from the bottom. On the 11th, they thickened the threads, but in a confused manner; the threads which were first spun were fastened diagonally, and the *Spiders* seemed to amuse themselves in walking longitudinally upon them. On the 12th day, the male was separated from the females, and placed in a glass by himself. On the day following, two of the females fixed a close bag to the edge of the glass, from which the water was expelled by the air from the tubercles, and thus a cell was formed, capable of containing the whole animal. Having done this, and air enough being emitted to drive down the water to the bottom of the cells, they quietly remained there, the abdomen possessing the cell of air, and the thorax still plunged in the water. In a few days, the rest of the females finished their cells in the same manner. In a short time, brimstone-coloured bags of eggs appeared in each cell, filling about a fourth part of them. They now very rarely quitted their nests, but often plunged the thorax and legs somewhat deeper into the water, whilst the region of the tubercles was still kept in the dry. Four days after, I poured off half the water, and put in fresh. On the 7th of July, several young ones swam out from one of the bags. I opened the other bags, and found the eggs very small, separate, and round. From the middle of May to July, they had nothing to eat, and yet they never attacked one another, as the *Aërial Spiders* are ready to do upon such occasions.

CHAPTER IX.

OF TWO-EYED-SPIDERS.

AMONGST more than sixty *Spiders* described in the course of this work, there is evidently a general similitude. The *Two-eyed Spiders*, however, are more strikingly distinguished from the proper ones, than the birds of the order *Accipitres*, are from those of the order *Galline*.

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Of

Of these insects, therefore, which in reality are not *Spiders*, though so named by the older writers, who appear to have examined them but slightly, I shall merely give the general characters, illustrated by the figures, at plate 9, fig. 1, 3, and 5; and briefly mention the reasons which forbid them to be placed amongst the real *Spiders*.

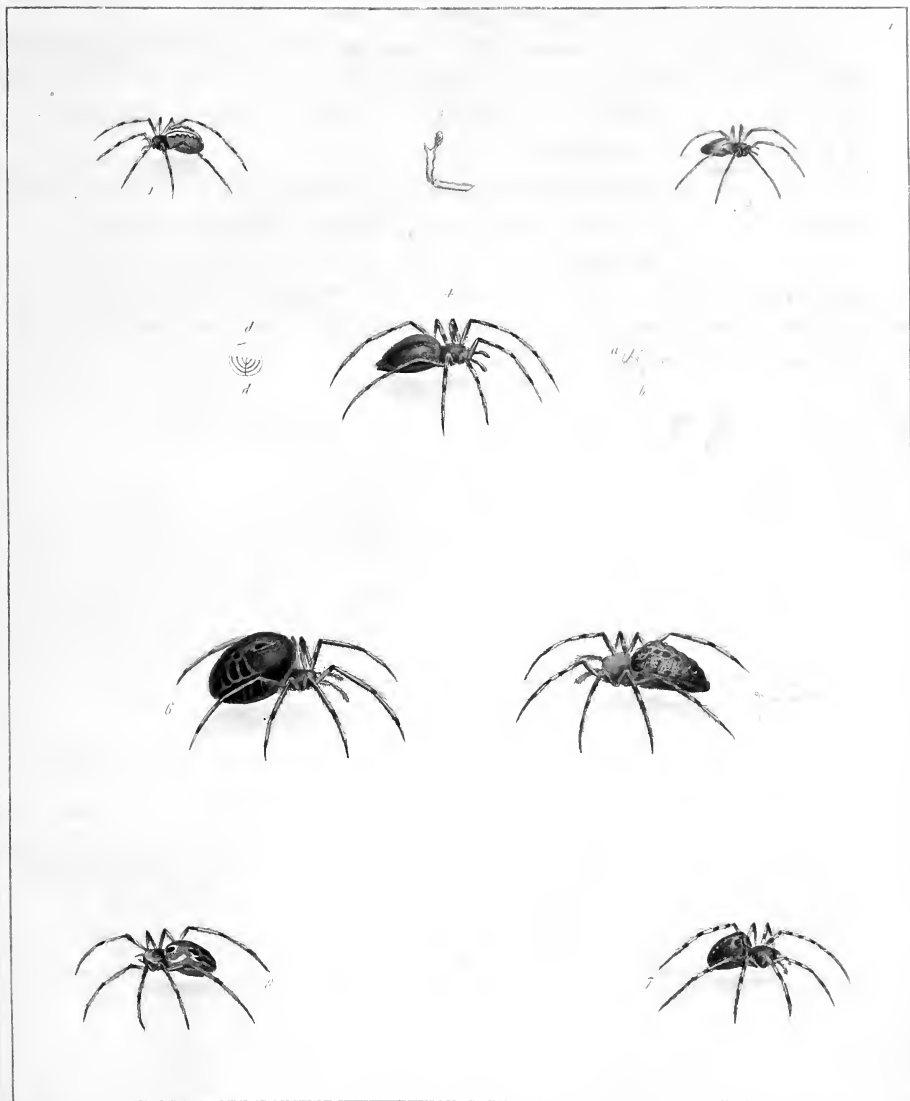
1. THESE *Binocular* or *Two-eyed Spiders*, have the thorax and abdomen united into one body or trunk, without any division or juncture, as in the true *Spiders*. 2. They have not eight eyes, like real *Spiders*, but only two, and differently situated from those of *Spiders*. 3. Their legs are totally unlike those of *Spiders*.

FROM the above circumstances of discrepancy, I have therefore thought myself justified in omitting the *Binocular-Spiders*, as not properly belonging to the genuine ones.

THIS opinion I also proposed to the illustrious LINNÆUS, who was pleased not only to confirm it, but likewise assured me, " That in his own works, the *Fauna Suecica*, and *Systema Naturæ*, now about to be published, he had separated the above insects from the proper "*Spiders*, and placed them in a distinct genus."

THE END.

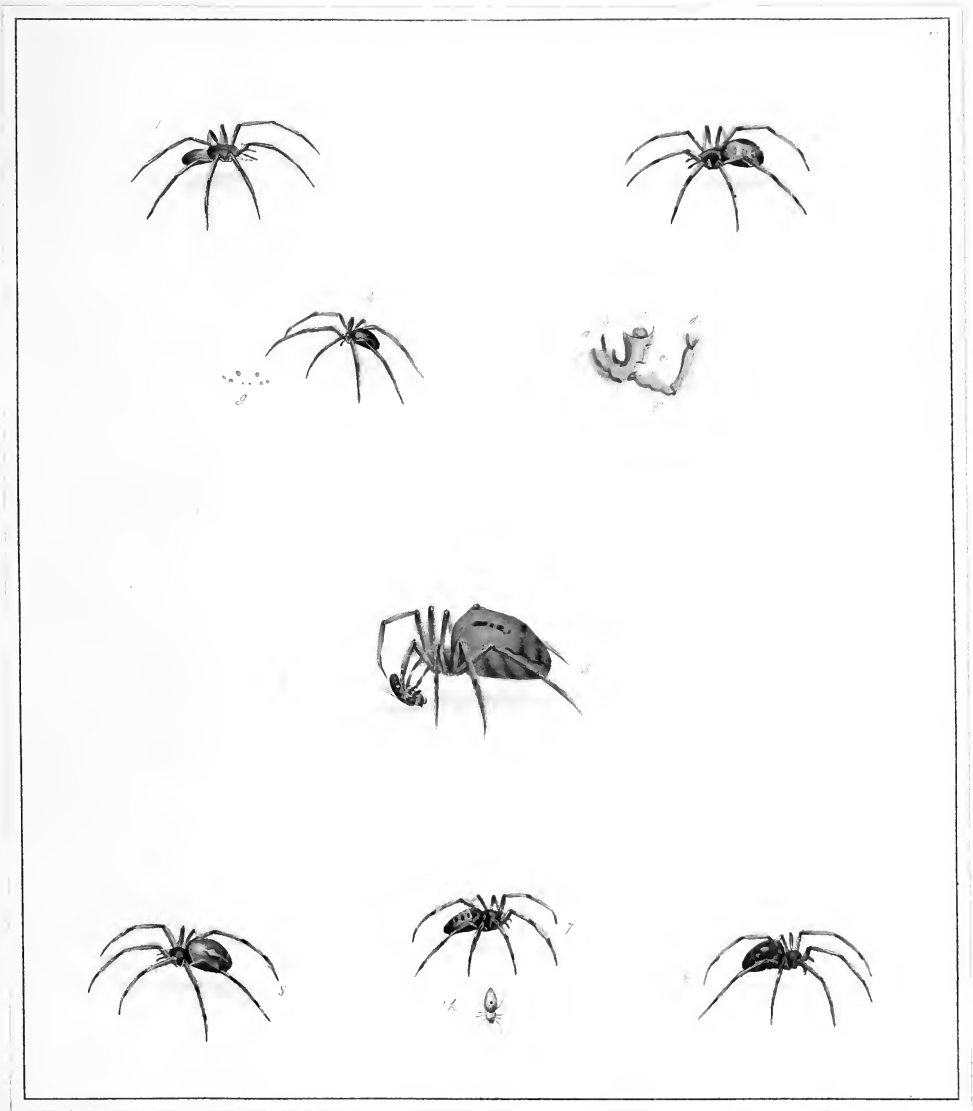
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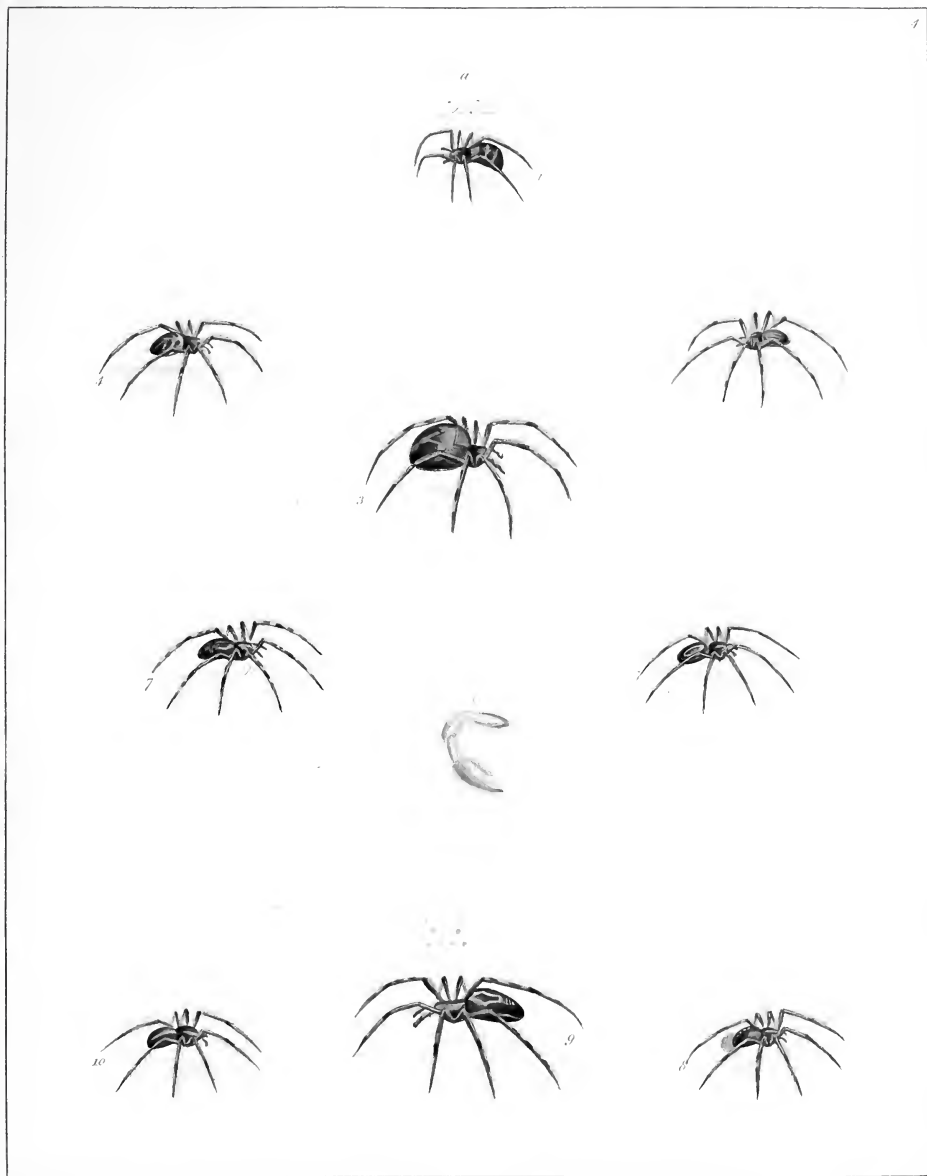
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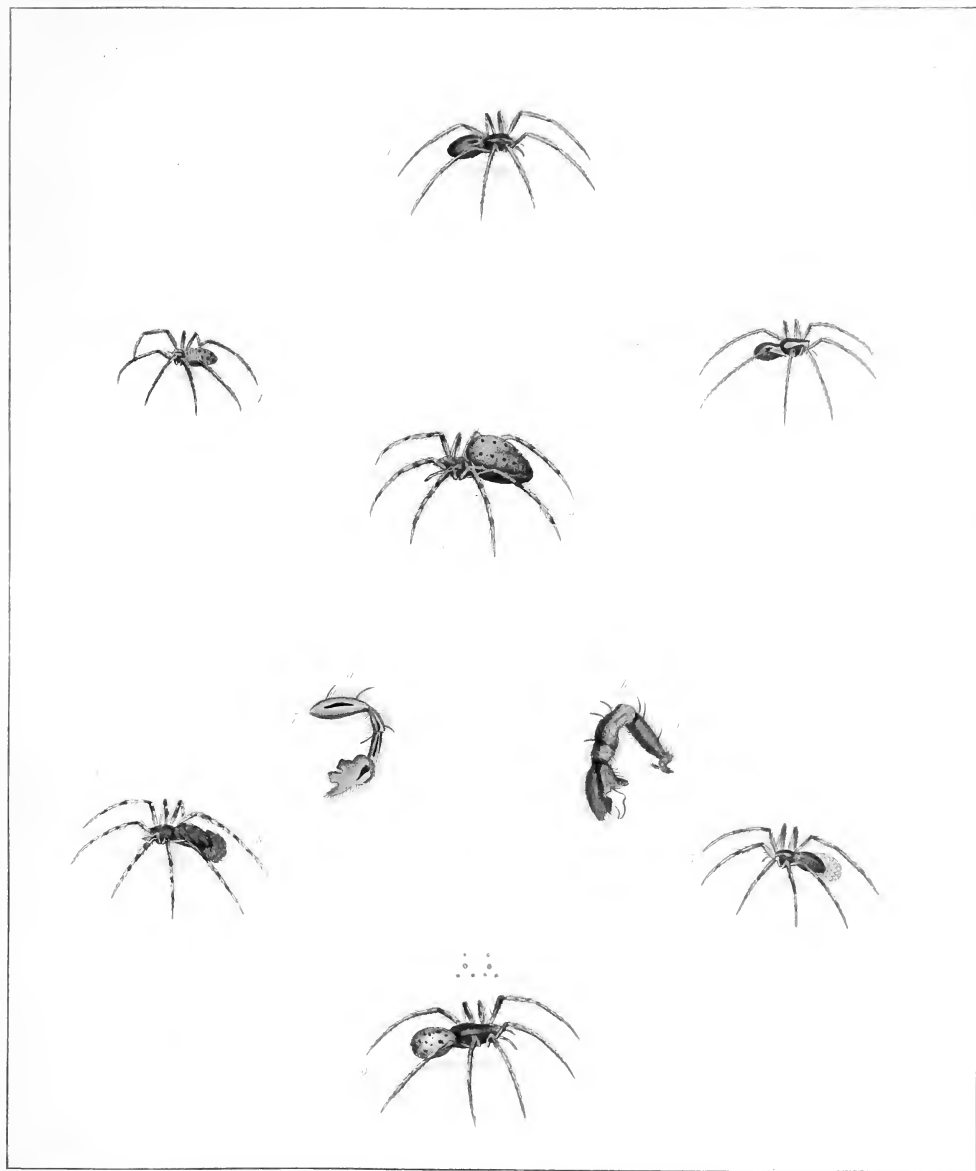
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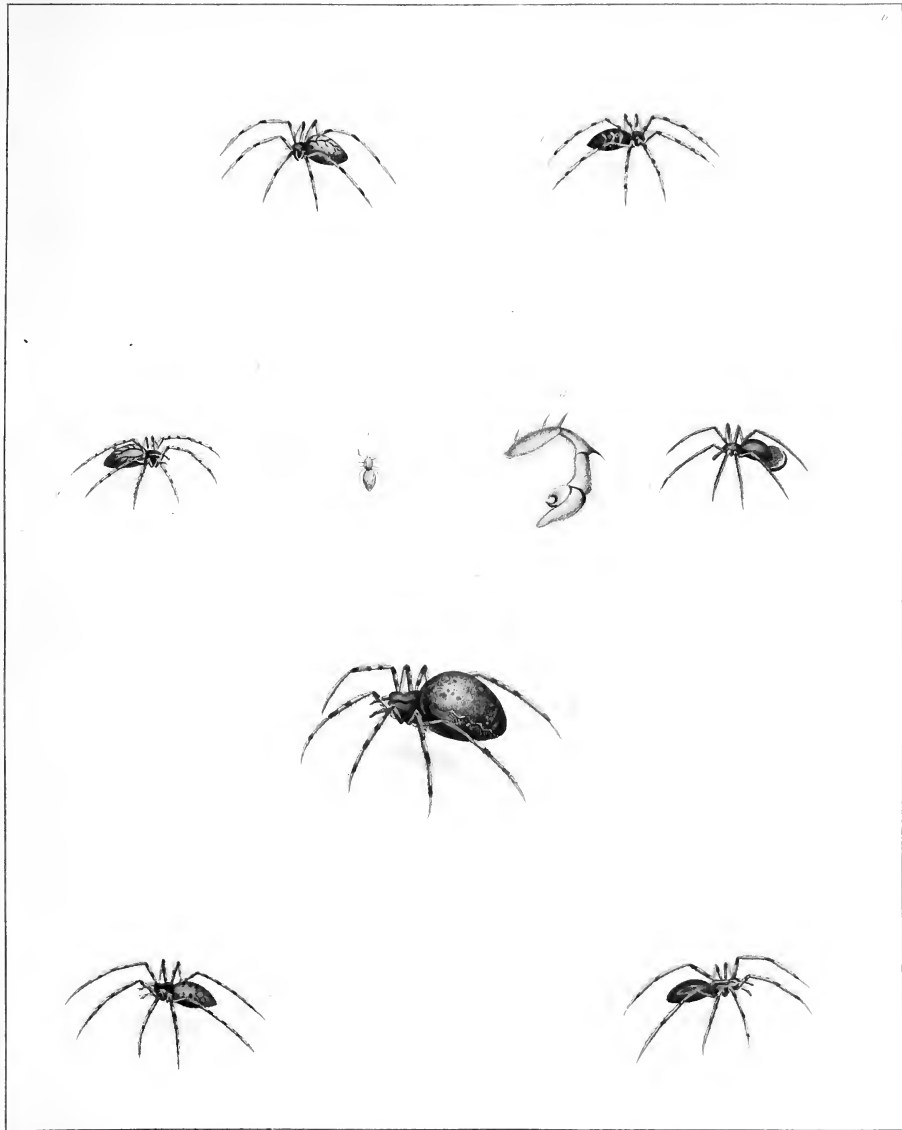
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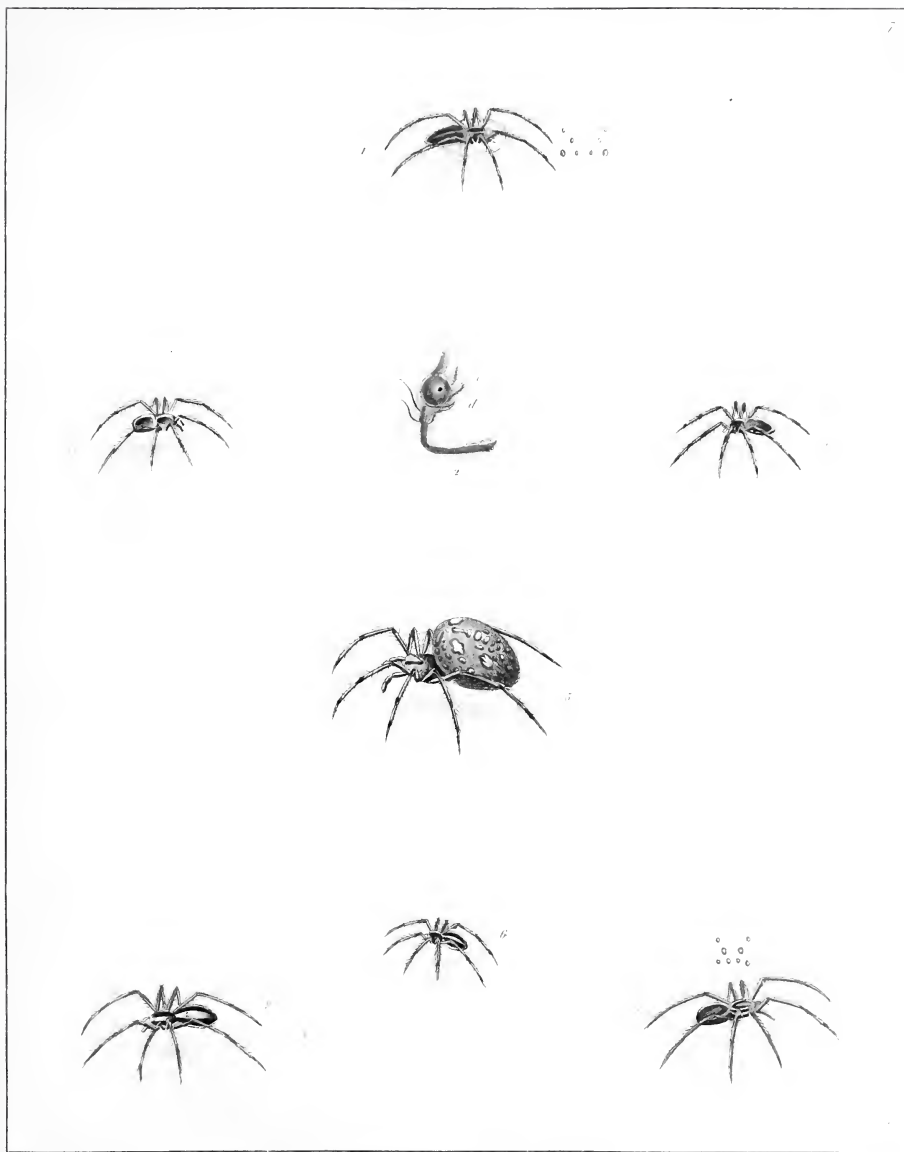
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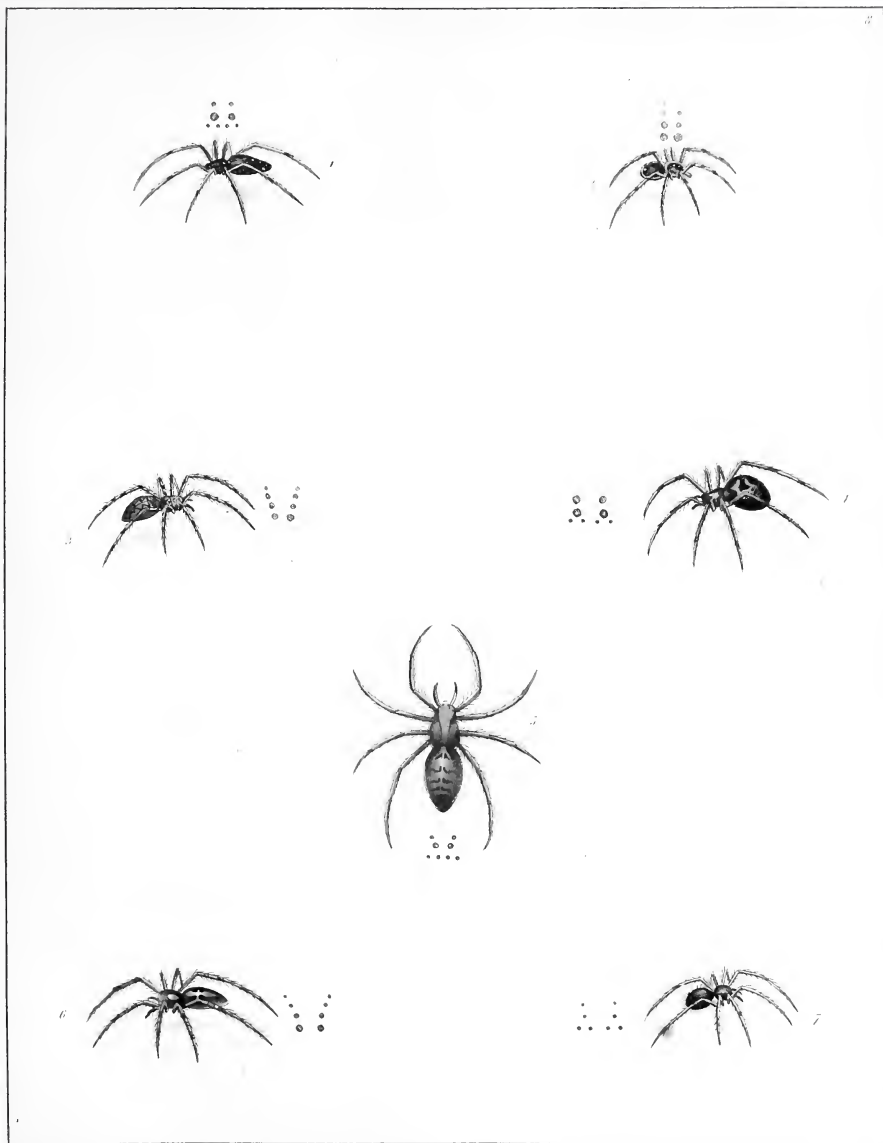
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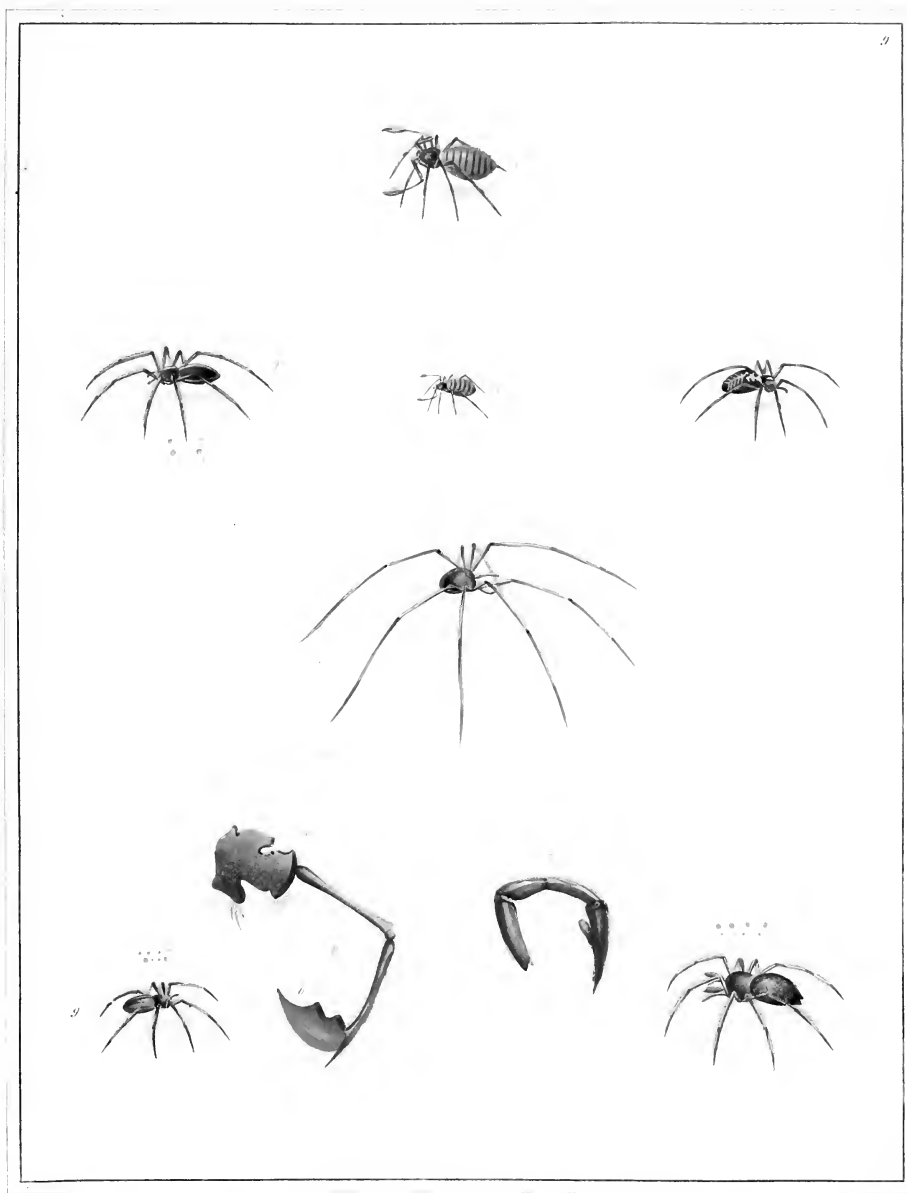
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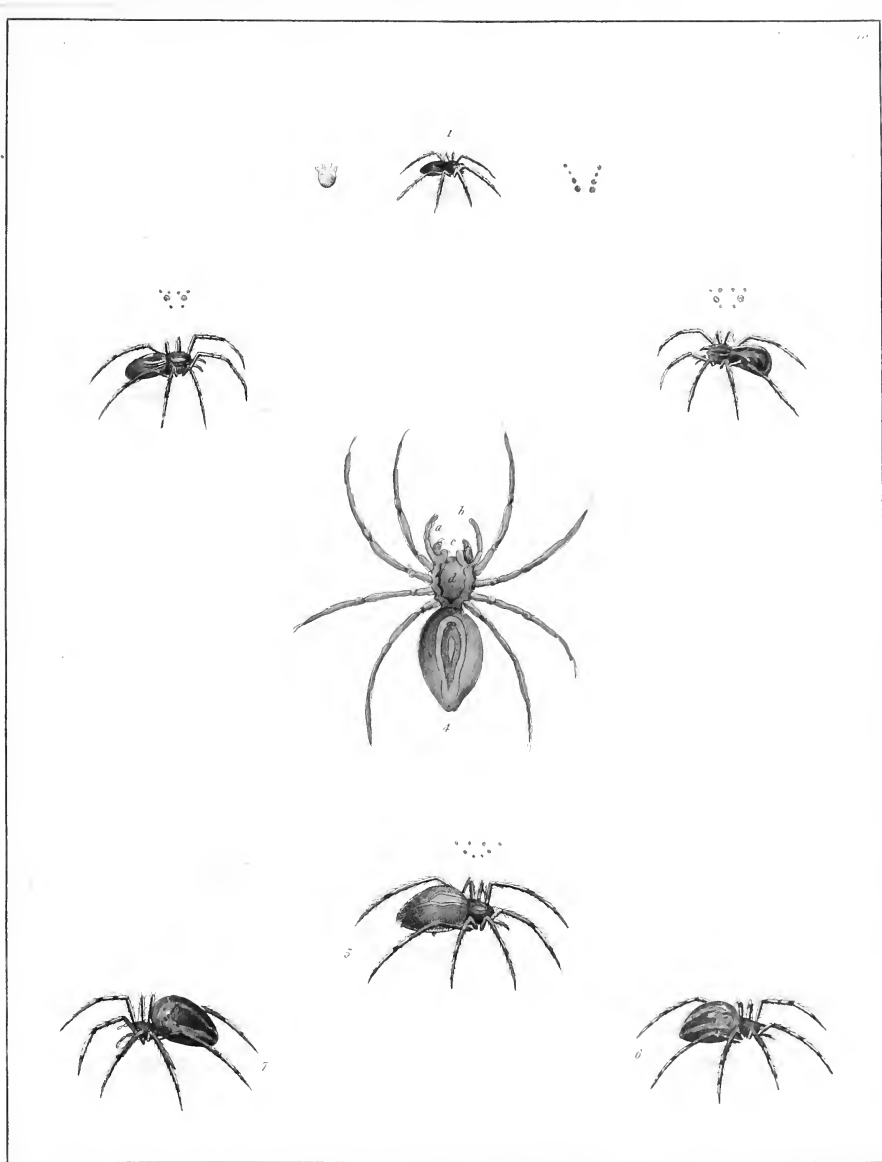
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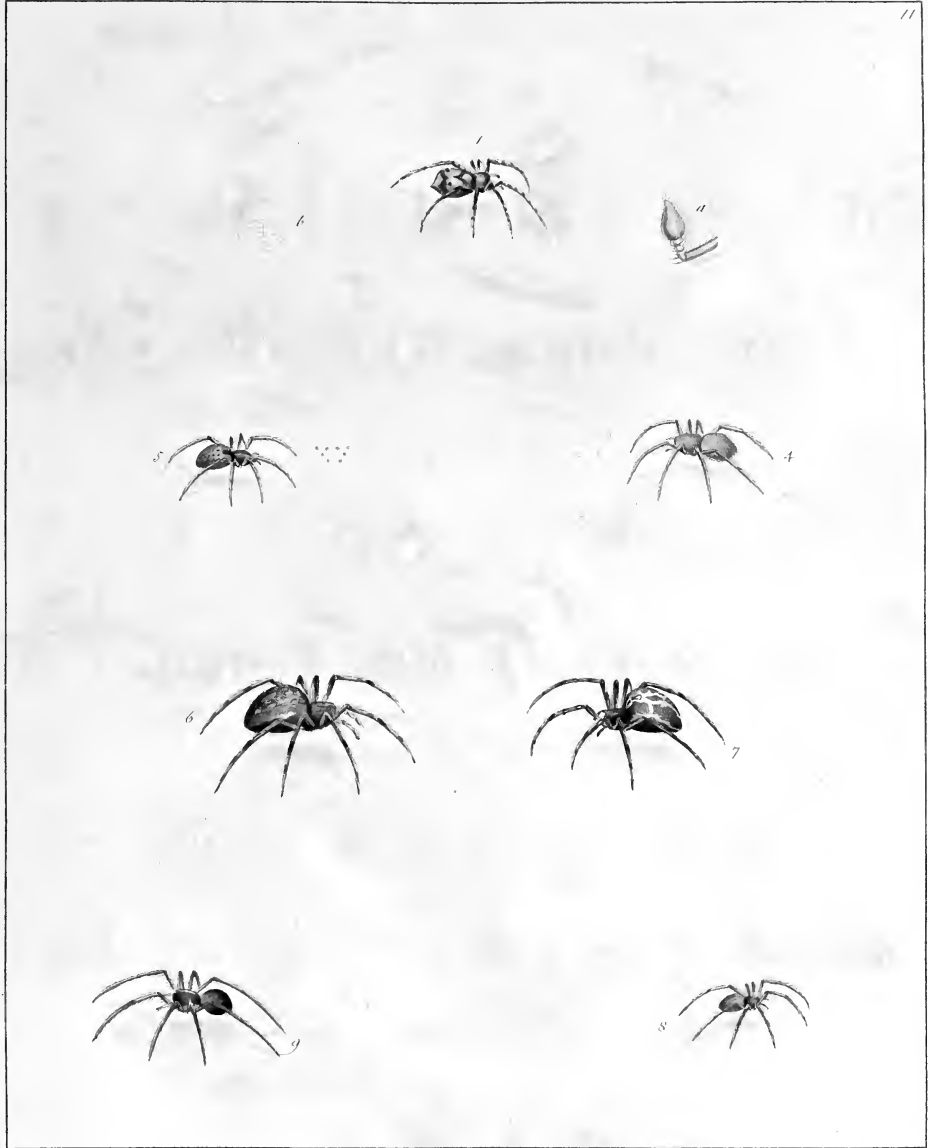


Araneae



Aranea.

11



FIGURES

ENGLISH SPIDERS

As Work originally given

BY

Cesar Allen

Revised and Designed anew

THOMAS MARTIN

Author of the Universal Conchologist, English Entomologist, &c.

At his Academy for Illustrating and Painting Natural History

N^o. 70 Great Marlborough Street LONDON

M D C C X C III



ENGLISH SPIDERS.

ADVERTISEMENT.

IN the following work are exhibited, the Portraits of one hundred and seventy-three species of *Spiders*, collected within a very few miles of this metropolis. It is certain that no person in this country, Mr. ALBIN excepted, has ever assembled so great a variety; nor has any collector, perhaps, to boast the possession of drawings to any extent of these Insects. The reason may probably be, that the objects are of a description, the sight of which is too often apt to create disgust, rather than attract contemplation: otherwise, the Editor is persuaded, that instead of one hundred and seventy-three species, more than double that number would long since have been discovered in this kingdom, and proportionably in other countries. In corroboration of this conclusion, an observation may be adduced; that scarcely a similitude in the markings among any of the several species in the Swedish work, can be traced in those, which are given as English ones. It may, therefore, be presumed, if persons, lovers of Natural History, in provincial situations, would, at their leisure, take, describe, and get drawings executed, of all the different *Spiders* they might find, (a thing very attainable, as the objects are easily caught, and at the same time perfectly harmless); they might thus furnish the means of enriching a future edition of this work, with a great number of new species.

THE public may depend upon the fidelity of the respective representations, according to nature, of the objects here anew presented to them.

THE Editor begs further to remark, that, to avoid unnecessary repetition, which would necessarily have occurred in speaking of the eyes, it will suffice, once for all, to inform the reader, that the size, and disposition of this part of the object, (where they have been ascertained), are distinctly given, near to that figure, as they appeared by the help of a common magnifier.

ENGLISH SPIDERS.

PLATE I.—FIG. I.

THIS specimen was entirely of a light brown colour, intermingled with dark specks. The two fore legs were the longest: the two next shorter, and the hind ones the shortest. Feelers slender, eyes eight. Common in the hedges by Hornsey-Wood.—Taken the middle of May. It was observed, that many small ones, with similar markings, were in company. From its swiftness in running, it is called the *Greybound-Spider*.

PLATE I.—FIG. II.

WAS of a dark brown complexion: the upper side of the belly and back lighter coloured; bordered on each side with black; and altogether had a soft downy appearance. It had eight eyes, and long feelers: taken in a garden, at Hackney, about the 10th of April.

PLATE I.—FIG. III.

THIS species was of a lead-colour, with a light streak down the middle of the back. The upper side of the belly was curiously marked with white dots, bordered by a waved line of white. Feelers slender, as those of females generally are; males having globular knobs at the end of theirs. Young ones have the same distinct markings as those which are full grown, but fainter. This is one of the *House-Spiders*, and many virtues have been attributed to an internal use of its web in fevers, agues, &c.

PLATE I.—FIG. IV.

THE body of this specimen was a dark brown; the belly much lighter coloured, and the whole insect very hairy. On the upper part of the belly were two rows of black and white spots, alternately following each other. The feelers were of a singular form, having two knobs on each, the last ending like the head of a spear. Eyes eight.—Found under the coping of a garden-wall, at Newington, the middle of September.

P L A T E I.—F I G. V.

THE body was a dark brown, with a streak of light in the middle, in the center of which, again, was a small black line; a brown mark, of an oblong square form, was on the upper part of the belly. Feelers long and slender: eyes fix.—Taken in Caen-wood, in April. One of the same species was caught in June, with its egg-bag, which was round and white.

P L A T E I.—F I G. VI.

THIS species was greyish, with a faint light streak on the back. In the Spring season they are seen in numbers, both in the fields and hedges. In June, they are found with their egg-bag, which is a little compressed, of a dark colour, and attached to the under part of their bellies: these bags do not impede their activity. With the assistance of a good magnifying glass, only four eyes could be ascertained, which are placed on the fore part of the head.

P L A T E I.—F I G. VII.

THE back was inclining to a black: the upper side of the belly a yellow ash-colour, and marked with black: the joints of the legs of a peculiar form, resembling arrow heads: feelers long and smooth: eyes eight.—It was a female *House-Spider*, and taken the beginning of April.

P L A T E I.—F I G. VIII.

THIS *Spider* was of a lead-colour, with a line of pale orange down the middle of the back: the upper part of the belly almost black: the under part light: eyes eight.—Taken near Newington-green, the latter end of May.

P L A T E I.—F I G. IX.

THE back of this specimen was blackish: the upper side of the belly a yellowish ash-colour, with some black marks: the legs parti-coloured of black and brown; and the joints curiously barbed: feelers long and smooth: eyes eight.—It is a female *House-Spider*, and taken the beginning of April.

PLATE II.—FIG. I.

THE top of the back white, with a black line running along the middle of the back and belly to the tail : the legs and sides of the belly were brown and hairy : eyes six. By the assistance of a strong magnifier, it appeared the upper part of the belly was also hairy, and beautifully spotted.—Taken in Caen-wood, the middle of April.

PLATE II.—FIG. II.

ON the top of the back was a streak of light : the sides black, going off into a faint shade of white : the tail of a light colour, which, with the legs, were beautifully spotted : eyes six. It was observable the belly was considerable shorter than usually seen in this species.—Caught in Caen-wood, the middle of April.

PLATE II.—FIG. III.

WAS of a dark ash-colour, with a light streak on the back : on the belly were three faint bars of a dark colour. The knobs, at the extremities of the feelers, were a shining black, and beneath them again were smaller knobs ; peculiarities seldom observed in any other species. It was a male, and every part was hairy : eyes six.—Taken in a house, the latter end of April.

PLATE II.—FIG. IV.

THE prevailing colour of this specimen was a light brown, with a light streak in the middle of the back, in which was a small black line : the upper part of the belly marked in a peculiar manner, so as to represent joints : the legs spotted with black : eyes eight. The whole insect was hairy.—Found in a cellar, the latter end of April.

PLATE II.—FIG. V.

THE back was a dark brown, marked with a strong black line in the center ; the sides and under part inclining to a red : the belly was also a dark brown, on the top of which were many irregular black spots : legs a light brown, spotted with dark colour, and hairy, and had a forked tail : feelers slender and spotted : eyes six.—Taken in a cellar, the latter end of August.

P L A T E II.—F I G. VI.

THE body of this specimen was black, with a light shade on the middle of the back: the upper side of the belly ash-colour, and every part was hairy: feelers globular, with pointed ends: eyes four.—Taken the latter end of April, near Newington.

P L A T E II.—F I G. VII.

THE back of this species was a chestnut colour: belly a deep bronze, with a white mark joining to the back: legs a light brown, transparent and spotted with black: eyes not discernible.—Taken in a garden, at Hackney, in May.

P L A T E II.—F I G. VIII.

THE back and belly were a deep flesh colour: upper side of the belly crossed with several dark lines: the two foremost legs longest: two next shorter: the third pair shortest of all; and the whole of a dark complexion, and longer than generally are seen in *Spiders* of this size: eyes eight.

P L A T E II.—F I G. IX.

EVERY part of this species was of a brown colour, with a streak of light along the back and belly to the end of the tail: on each side the light, were thick lines of a dark brown: legs hairy.—Found near Hampstead-heath, the middle of April.

P L A T E II.—F I G. X.

THIS specimen was of a dark brown colour, spotted with white: legs hairy: eyes six.—Taken the 10th of September, in a furze-bush, on Hampstead-common.

P L A T E III.—F I G. I.

THE back and legs were a mixt brown and green colour: upper part of the belly white: the sides, and under part a light green, beautifully spotted: feelers a faint green: eyes six.

P L A T E

P L A T E III.—F I G. II.

THE upper side of the belly of this specimen was marked chequer-wise, with black and white: the back was black. It had eight eyes, and is of that species which leap on their prey. To facilitate this manœuvre, nature has enabled them to spring either forward, backward, or side-ways, with equal facility.—Taken in a garden near the middle of September.

P L A T E III.—F I G. III.

WHEN taken was of a light ash-colour: the upper part of the abdomen marked with black lines: two shining black spots were on the fore-part of the body, three on each side, and two between the feelers: in these spots were eight eyes, placed in a semicircular form: the two uppermost being the largest. It has been observed, that those species who are of this description, seize their prey by leaping on it.

P L A T E III.—F I G. IV.

THIS species was altogether of a light brown colour: with two black streaks in the middle of the back: the upper side of the belly was finely streaked with white: at the end of the feelers were black pointed knobs: eyes eight.—Taken at Lewisham, in Kent, May 6.

P L A T E III.—F I G. V.

By the assistance of magnifying powers, this *Spider* appeared of a very singular complexion, and marked in every part with an admixture of the most brilliant colours. To the naked eye, however, these beauties were concealed by an appearance altogether speckled, greyish, rough, and hairy. The eyes were lucid, and eight in number: the two center-ones the largest. It is one of those species who move either way with facility, and leap on their prey.—Taken in a garden at Hackney.

P L A T E III.—F I G. VI.

THIS was also one of the leaping species, and altogether of a muddy brown, with some dark marks on the upper part of the belly: the under part approaching to a black: eyes eight.—Found in Caen-wood, near Hampstead, in June.

P L A T E III.—F I G. VII.

THE upper part of the back was a shining black: lower part of the belly inclining to a red: the belly black, and marked with a lighter colour, resembling a leaf: legs a dark red, spotted with black: it had eight eyes, but they were scarcely discernible.—Taken in a cellar the latter end of April.

P L A T E III.—F I G. VIII.

THIS specimen was of a dark ash-colour, every part being curiously spotted with black, and a streak of white in the middle of the back and upper side of the belly: the legs were of a lighter colour than the other parts: the specks smaller: eyes six: the two foremost the least.—Taken in August.

P L A T E III.—F I G. IX.

THIS species had a stripe of orange-colour on the middle of the back, and down the center of the upper side of the belly: this stripe was edged with a border of black: the outer edges of which were composed of small black lines, forming as it were a faint shade, ending in white: legs a chestnut-colour: the feelers had thick knobs at their ends, but ending in points: eyes four.—Taken in Caen-wood April 14.

P L A T E III.—F I G. X.

THIS *Spider* was of a pale red colour: the back of a curious circular shape, from the middle of which the head rises, and forms, as it were, a bunch: the upper side of the belly was marked with dark brown lines and stripes: legs and feelers hairy, the latter having pointed knobs at their end: tails forked: eyes eight. A similar one, but of a larger size, and darker coloured, was taken under the coping of Hyde-park wall August 24.

P L A T E IV.—F I G. I.

THE body and legs were a fine brown: the upper side of the belly whitish, with two rows of brown spots: globular knobs were at the end of the feelers: legs long: eyes four.—Taken in Caen-wood the latter end of April.

P L A T E

P L A T E IV.—F I G. II.

THE belly of this *Spider* was a very dark brown: the body lighter coloured, as were also the legs, which were spotted: eyes not discernible.—Taken in April.

P L A T E IV.—F I G. III.

This species was entirely of a yellow-green colour: feelers slender.—Taken the middle of April, in Caen-wood.

P L A T E IV.—F I G. IV.

EVERY part of this specimen was of a light brown, except the upper side of the belly, which was curiously spotted: feelers slender: eyes four.—Taken, near Hornsey-wood, the middle of May.

P L A T E IV.—F I G. V.

THE whole of this *Spider* was also of a brown colour; and from the effect produced by the singular blending of the markings on the belly, that part had the appearance of being square: the two fore-legs the longest: feelers small.—Taken the middle of April, in Caen-wood.

P L A T E IV.—F I G. VI.

THE body and legs were a light red: on each side the belly was a row of dark coloured spots; and the end of the tail was tipped with scarlet: feelers small, and of a transparent green: eyes black, and six in number.—Taken in a web, on an elm-tree, in Epping-forest, the beginning of May. A smaller one was caught, at the same time, with similar markings.

P L A T E IV.—F I G. VII.

THIS specimen was of a light ash-colour, with a white mark in the middle of the back: and a similar one in the center of the upper side of its belly: legs hairy: eyes eight.—Taken in July. A ball, which it held fast with its legs, when opened, contained a number of minute *Spiders*, all black.

P L A T E IV.—F I G. VIII.

EVERY part of this species was of a light brown colour; with two black lines on the back: and a dark brown shade along the middle of the belly.—Caught in Caen-wood April 14.

P L A T E IV.—F I G. IX.

WAS a male, and entirely of a light brown colour; with a narrow line of light along the middle of the back and belly: the feelers large, with globular and pointed ends: eyes four.—Taken in Caen-wood the middle of April.

P L A T E IV.—F I G. X.

THIS *Spider* was of a fine brown, mottled with black: legs long and smooth: eyes eight.—Taken the middle of June, on Putney-heath, on a bank, where it had spread its web, to entangle its prey.

P L A T E IV.—F I G. XI.

THE prevailing colour of this specimen was grey. On the top of the body was a circular light mark, with a black spot in the center: on the upper part of the belly were several dark marks: legs a light brown: feelers short: eyes six.

P L A T E IV.—F I G. XII.

THE under part of the belly was of an ash-colour: the upper part, with the rest of the body, light brown.—Taken in the fields in April.

P L A T E V.—F I G. I.

THE back was a light brown, with two faint dark lines in the middle: the upper side of the belly yellow, in the lower part of which was a dark mark: legs spotted: at the end of the feelers, were globular bunches of a dark colour: eyes eight.—Found in a hedge, near Hornsey, August 28.

P L A T E V.—F I G. II.

THE back and belly of this *Spider* were black, prettily marked with white: legs brown and spotted: eyes eight.—Found in a garden, at Hackney, the beginning of June.

P L A T E

PLATE V.—FIG. III.

THE back was almost white, with a brown mark in the middle: the upper side of the belly a light chefnut-colour: the under side black: legs speckled: eyes eight.—Found in Caenwood, the beginning of June.

PLATE V.—FIG. IV.

THIS curious species was entirely of a beautiful green, with the exception of a few dark marks on the back and belly: feelers slender: eyes eight.—Caught on the ground, in Bishopswood, the latter end of June.

PLATE V.—FIG. V.

THE back was of a transparent green: the upper side of the belly a yellowish-white, with a black streak encompassed with spots towards the tail: the legs were long and transparent, except at the joints, which gave those parts the appearance of spots: eyes eight.—Found folded up in a nettle leaf, with a ball of eggs, of a blue colour, near Camberwell, September 6.

PLATE V.—FIG. VI.

THE back had a brownish cast: the sides darker: the belly was a dull yellow: on the upper part of which was an irregular brown mark from the back to the tail, which was forked: the under side of the belly was also of a dingy yellow, ornamented with two beautiful gold-coloured spots: eyes eight.—Found spun up in the tops of green forrel, and with it a bag of eggs, of a pale red colour, near Lewisham, in Kent, the beginning of July.

PLATE V.—FIG. VII.

THIS specimen was of a dark brown colour, inclining to black; a streak of a lighter hue extended along the body and belly, from the head to the extreme point of the tail; on each side of which were many dark spots or lines: the feelers were long: and the forceps, or jaws, apparently sharp, and finely polished; every part was hairy.—Taken in a cellar, the middle of September.

P L A T E V.—F I G. VIII.

THE upper side of the belly and back were of a dark chefnut-colour : tail almost black : legs a dark brown. A black shining spot was observed on the inner-side of the knobs, on the feelers : eyes eight.—Caught in Caen-wood, the beginning of June.

P L A T E V.—F I G. IX.

THE general complexion of this species was an orange-colour, with a light streak on the top of the back : and a dark brown shade on the top of the belly : eyes eight.—Found in Caen-wood, the beginning of June.

P L A T E V.—F I G. X.

THIS species was entirely of a brown colour, with a streak of light on the back : feelers remarkably short.—It is one of those *Spiders* who seize their prey by leaping on it.

P L A T E VI.—F I G. I.

THIS specimen was of a light brown colour, with a dark line on the back : legs spotted.—Found the middle of June, near Woolwich ; and when taken, a ball of eggs, a little compressed, and of a bluish colour, was attached under its belly.

P L A T E VI.—F I G. II.

THE whole surface of this specimen appeared of a shining greyish black : on the upper side of the belly were two rows of indented spots, in regular order : the tail forked : legs and feelers a dark red : eyes undiscernible.—Caught on the ground, near Charlton, in Kent, the middle of June.

P L A T E VI.—F I G. III.

THE back was of a pale orange : upper side of the belly curiously marked with light green and brown : the white part having a beautiful silvery appearance : the two fore legs the longest : the next pair a little shorter : the third the shortest of all : the body altogether was of a singular shape : eyes eight.—Taken in a hedge, near Peckham, May 23.

P L A T E VI.—F I G. IV.

THE back and legs were of a dark green : the belly lighter coloured : on the upper side of which was an irregular mark of a deeper shade : eyes eight.—Taken on an oak-tree, in Caen-wood, the latter end of July.

P L A T E VI.—F I G. V.

THIS specimen was entirely of a light brown colour, marked with a number of short lines of a deeper shade : every part was hairy : eyes eight.

P L A T E VI.—F I G. VI.

To the naked eye this specimen was greyish, speckled, and hairy ; but, by the help of a magnifier, it was discovered to be truly curious and beautiful ; ornamented as it was in every part, by a mixture of a profusion of colours : eyes eight : it is a leaper, and remarkably active.—Taken in a garden, at Hackney.

P L A T E VI.—F I G. VII.

THIS *Spider* was of a greyish black : feelers knobbed : eyes six.—Are numerous in low wet grounds, about the middle of April.

P L A T E VI.—F I G. VIII.

WAS entirely of a chefnut-colour, with a light streak on the back : and the belly curiously dotted : every part had a velvety appearance : eyes eight.—Taken the beginning of June in Caen-wood : being put into a box, on the morrow, it was observed to have laid eggs, and enveloped them with a thick white substance, and attached the whole to her belly.

P L A T E VI.—F I G. IX.

WAS entirely of a brown colour : the under part of the belly darker : legs long and hairy : eyes six.—Taken on the ground, the beginning of September.

PLATE VI.—FIG. X.

THE back of this specimen was a dark red: belly almost a black, and finely speckled with white: legs blackish; the two foremost being the longest, next pair shorter, and the third pair still shorter: body of a peculiar shape: eyes eight.—Found in a hedge, near Peckham, May 23.

PLATE VII.—FIG. I.

EVERY part of this species was of a brown colour, with some dark marks on the back and belly: eyes not discernible.—Taken near Charlton, in Kent.

PLATE VII.—FIG. II.

THE middle of the back was a dark red, with a stripe of yellow on each side: the upper side of the belly was almost black, with two rows of small white specks on each side: the legs, feelers, and under part of the belly, were of a dark chefnut-colour: eyes eight.—Taken April 18.

PLATE VII.—FIG. III.

THE whole of this specimen was of a dove-colour; on the middle of the back were two black lines, and four spots on the upper part of the belly: feelers knobbed, and pointed at the ends.—Found at Lewisham, in Kent, May 6.

PLATE VII.—FIG. IV.

THE upper part of the body was of a chefnut-colour, with two dark lines on each side: top of the belly a light brown, as were also the legs, the joints of which were curiously barbed: feelers hairy and globular; and on the outside of each was a white bright knob, encircled with yellow, much resembling a fet foil-stone.—It was a male, had eight eyes.—Taken in a house, in April.

PLATE VII.—FIG. V.

THIS specimen was curiously marked with brown and fawn-colour: legs spotted: eyes six.—Common among nettles, near Putney.

PLATE

P L A T E VII.—F I G. VI.

THE back was a chefnut-colour: upper side of the belly black, and beautifully striped with bars of white: the legs a light brown: feelers darker: tail forked: eyes eight.—Found in a thick web, the middle of June.

P L A T E VII.—F I G. VII.

THE back was of a flesh-colour, marked with black lines: every part of the belly was also curiously marked with black and white, and presenting a beautiful representation of minute and delicate ermine: tail forked: legs spotted: eyes eight.—Taken on a ground-web (in which was a hole for its retreat), near Dulwich, in Kent, June 8.

P L A T E VII.—F I G. VIII.

THE back of this species was alternately marked with lines of different shades of brown: the belly was also prettily figured with brown dots, and the tail forked: feelers a chefnut-colour, and hairy: eyes eight.—Taken in a garden, August 27.

P L A T E VII.—F I G. IX.

THE back was an orange-brown, marked with two black lines: the belly was brown, with a deeper shade along the middle, forming figures, each in the shape of a heart: legs and feelers brown: eyes eight.—Caught on the ground, near Woolwich, the middle of June.

P L A T E VII.—F I G. X.

EVERY part of this *Spider* was of a light grey colour, curiously mottled with black. Feelers oval, and of a shining black: the eyes could not be ascertained.—Caught in April on the Burdock-plant.

P L A T E VIII.—F I G. I.

THE back of this species was of a dark brown: the upper side of the belly lighter, and curiously marked: legs a dull yellow, and spotted: feelers slender.—Found in Bishops-wood, the latter end of September.

PLATE VIII.—FIG. II.

THE body was brown : the belly almost black, and prettily figured with white and black, with an oblong white space along the middle : legs of a light brown.—Taken in June.

PLATE VIII.—FIG. III.

THE back was rather large, with two red marks : legs and feelers of a light brown : on the innermost side of each of the knobs, at the end of the feelers, was a black spot : eyes six.—Found in Caen-wood, in June.

PLATE VIII.—FIG. IV.

THE upper part of the back was of a shining black : the lower part of a dull red : the belly was also black : on the upper side of which were markings of a light colour resembling a leaf : legs brown, and spotted with black ; from the glossy effect on the back, the eyes (which were eight) could scarcely be ascertained.—Found in a cellar, the latter end of April.

PLATE VIII.—FIG. V.

THE complexion of this specimen in every part was green, most beautifully marbled, and speckled with black : the extreme corners of the belly next the back were knobbed, as are some of the Cimices, or Wood Bugs : eyes eight.—Taken in a wood, at Lewisham, in Kent, May 23.

PLATE VIII.—FIG. VI.

THE back was of a flesh-colour, mixed with a cast of green : legs and feelers a light brown : the upper side of the belly of a light green in the middle, and a bluish cast on the outside : the tail, at the end, was of a fine red : eyes six.—Found in a thin web, on the bushes, on Putney-heath, the middle of June.

PLATE VIII.—FIG. VII.

THE back was of a chestnut-colour : the upper part of the belly and legs beautifully speckled with brown and orange-colours : feelers slender : eyes six.—Caught in Caen-wood, the middle of April.

PLATE VIII.—FIG. VIII.

THIS specimen was all over of a light brown, with four triangular marks, of different sizes, on the top of the belly: feelers slender.—Taken in July.

PLATE VIII.—FIG. IX.

THE prevailing colour of this large *Spider* was a dark red, with a few brown lines on the back: every part of the belly was curiously ornamented with marks of variegated colours, with a row of white spots down the middle: the legs were spotted and hairy, intermixed with some bristles: eyes eight.

PLATE VIII.—FIG. X.

THIS specimen was entirely of a light brown, with a dark shade on the top of the belly: feelers remarkably short.—Taken in August.

PLATE VIII.—FIG. XI.

THE general colour of this species was brown: the middle of the back lighter: the sides almost black: on the upper side of the belly was a light shade in the shape of a feather, and in that again an oblong square: the sides of the belly a dark brown: eyes six.—Taken at Dulwich, in Kent, the beginning of July.

PLATE IX.—FIG. I.

THIS specimen was of a reddish brown, marked with specks of a deeper colour: the legs spotted with black.—Taken on a white thorn, in Bishops-wood, the beginning of September.

PLATE IX.—FIG. II.

THE back was a light brown: the belly a cream-white, beautifully speckled with brown, and interspersed with tender black veins: eyes six.—Taken on its web, in Caen-wood, the end of July. This specimen, being kept two or three days in a box, was observed to have formed a ball of eggs, which was round and white.

PLATE

P L A T E IX.—F I G. III.

THE back was dark in the middle, and a light ash-colour on the sides: upper part of the belly was a fine scarlet, with a broad white border on each side: under side of the belly was of a dark ash-colour, spotted with black: legs greyish, with a remarkable protuberance on the outermost joint of the two foremost: eyes fix.

P L A T E IX.—F I G. IV.

THIS specimen was entirely of an ash-colour, and the belly marked with brown streaks, resembling ribs: the legs were of a light brown, and spotted at the joints: eyes fix.—Found on Hampstead-heath, August 30.

P L A T E IX.—F I G. V.

THE back and legs were cinder-coloured: upper side of the belly a dull white, encircled with red rings.—Found in Caen-wood, the latter end of July.

P L A T E IX.—F I G. VI.

THE back and legs were of an ash-colour, upper side of the belly white, in the center of which was a dark mark, resembling a spleenwort leaf: eyes fix; two of which were placed so close together as to appear but one.—Found in Caen-wood, the latter end of June.

P L A T E IX.—F I G. VII.

THE prevailing colour of this *Spider* was a rich dark brown, curiously marked and dotted, with light colours: the legs and feelers were spotted and hairy: eyes fix.—Found in Bishop's-wood, the latter end of August.

P L A T E IX.—F I G. VIII.

THIS specimen was entirely of a yellow-green, with two rows of small black spots on the upper part of the back and belly: eyes fix; presently after being taken, it was remarked to cast its skin, but instantly re-assumed its former appearance.—Caught on Putney-heath, the middle of June.

P L A T E IX.—F I G. IX.

EVERY part of this species was also of a beautiful green, and had eight eyes; it was uncommonly active, and apparently quick-fighted.—Taken in Caen-wood, the first week in June.

P L A T E IX.—F I G. X.

THE back was of a strong chestnut-colour: the upper side of the belly black, with a light mark along the middle, resembling a sprig of yew: eyes eight.—Found on its web, on the ground, in a warren, near Woolwich, in Kent, the middle of June. It was afterwards remarked, that these species are something larger, when taken in July.

P L A T E IX.—F I G. XI.

THIS *Spider* was entirely of a buff-colour, with a dark shade in the middle of the back: the belly was prettily marked, and the legs spotted: eyes six.—Found on a wall, at Hackney, the latter end of September.

P L A T E IX.—F I G. XII.

WAS altogether of a light brown; the upper side of the belly and legs beautifully spotted: feelers slender: eyes eight.—Taken from an *Ichneumon*-fly, in Caen-wood, the beginning of June.

P L A T E X.—F I G. I.

THE back was of a yellowish-red, with two stripes of black in the middle: the upper part of the belly had also a yellow cast, encircled with red bands: legs were of a dark red: the ends of the feelers were formed like the rowel of a spur: eyes six.—Found among nettles, near Putney, September 11.

P L A T E X.—F I G. II.

THE back and upper part of the belly of this species were of a light brown, edged with a dark line: the under parts and legs were also of the same colour: eyes four.—Taken in Caen-wood, April 14.

P L A T E X.—F I G. III.

THE prevailing colour of this specimen was brown, with a few markings on the back and belly: legs curiously speckled: eyes eight.—Found spun up in a hazel-leaf, with a ball of eggs, which was of a yellow complexion, and enveloped with a white substance, in a wood, near Peckham, the beginning of June.

P L A T E X.—F I G. IV.

THIS *Spider* was entirely of a dark green, with a deep shade on the back: eyes eight.—Found in Caen-wood, in July.

P L A T E X.—F I G. V.

EVERY part of this species was of a mottled brown, with some light markings on the top of the belly: eyes eight.—Taken on the ground, in Greenwich-park, March 31.

P L A T E X.—F I G. VI.

THIS specimen was in every part of a dark copper-colour, with a light shade on the back: legs a light brown, and spotted with black: feelers slender: eyes could not properly be ascertained.—Caught under a shed, the latter end of April.

P L A T E X.—F I G. VII.

THE general colour of this beautiful *Spider* was of a light ash-colour, with a broad stripe of white along the top of the belly, on which were two rows of black specks; and the legs finely spotted: at the extremity of the belly were two short appendages, which the insect dilated, or closed at pleasure.—Taken in a house, at Maidenhead, the middle of May.

P L A T E X.—F I G. VIII.

THE back and belly were of a dark cinder-colour: the legs and feelers yellowish: eyes eight.—Taken the middle of May, near Hornsey-wood. A similar specimen, with many young ones, was found wrapped in a leaf, at Hambleton, in Buckinghamshire.

P L A T E X.—F I G. IX.

THE light parts of this species were of a bluish white : the top of the back bordered with black : and the upper side of the belly curiously marked with several tender lines of black : on the ends of the feelers were globular knobs : the legs finely spotted.

P L A T E X.—F I G. X.

THE general colour of this *Spider* was a rich brown, with some dark lines on the back, and dots on the belly : legs a little spotted, and appearing transparent : eyes eight.—Taken from an Ichneumon-fly, in Caen-wood, the beginning of July.

P L A T E X.—F I G. XI.

THE back and legs were of a dark red : the whole belly of a deep lead-colour, and hairy : tail of a flesh-colour, and forked : eyes eight. Taken near Woolwich, in Kent, the middle of June.

P L A T E XI.—F I G. I.

THE general complexion of this *Spider* was a deep ash-colour. On the top of the belly next the back, was a light band, on which was a dark spot ; near to this band, was a perfect figure of a cross in white : the legs were spotted : feelers long : and eyes four.—Found in a garden, in April.

P L A T E XI.—F I G. II.

THE upper parts, together with the legs and feelers, were of a deep brown, with a light streak on the back, and a cross on the top of the belly : the under part of which was light and speckled with dark spots : eyes eight.—Found in Caen-wood, the latter end of July.

P L A T E XI.—F I G. III.

THIS specimen was entirely of a dark chestnut-colour, except four orange-marks, which were on the upper side of the belly.—Found folded up in a leaf, with a ball of eggs, the latter end of July.

P L A T E XI.—F I G. IV.

THIS species was of a buff-colour, with a dark brown mark on each side of the back, and streaks of black along both sides of the belly: eyes eight.—Taken on a furze-bush, on Putney-heath, June 21.

P L A T E XI.—F I G. V.

EVERY part of this large specimen were of a dark orange-colour, bedecked with beautiful variegated markings of different colours, scarcely to be imitated by art: eyes eight.—Taken in Caen-wood, September 20.

P L A T E XI.—F I G. VI.

THE back was of a yellowish brown: the upper side of the belly white, with a large dark brown mark, from the middle to the extremity of the tail: the legs were party-coloured: the first and last joints being of a light brown: the middle joints of a bright red, and the ends of each joint spotted with a dark shade: feelers slender: eyes eight.—Taken in Bishops-wood, the beginning of September.

P L A T E XI.—F I G. VII.

THE complexion of this curious species, in every part, was of a dark colour, and the belly adorned with singular markings, resembling Mosaic work: feelers slender: eyes eight.—Taken near the New-river, the latter end of September.

P L A T E XI.—F I G. VIII.

THIS delicate *Spider* was entirely of a pale blue colour, with a few dark streaks on each side of the back, and upper part of the belly: the legs beautifully speckled: eyes imperceptible.—Found in Caen-wood, the beginning of June.

P L A T E XI.—F I G. IX.

EVERY part was of a light brown, and prettily marked with dark coloured lines and dots: the two fore-legs the longest: the two next the smallest: eyes six.—Found among nettles, near Newington-green, the latter end of April.

PLATE XI.—FIG. X.

THE whole of this *Spider* was of a reddish flesh-colour, curiously marked with black lines and dots: feelers slender: eyes fix.—Taken in a garden, on Epping-forest, the beginning of May.

PLATE XI.—FIG. XI.

THIS species was altogether of the finest green. Eyes eight.—Caught on the ground, in Caen-wood, the beginning of June.

PLATE XII.—FIG. I.

THE back, legs, and feelers, were of a lead-colour: on the upper part of the belly was an irregular mark of white, encompassed with a deep scarlet: the sides were yellow: eyes fix.—Found the latter end of July, in Caen-wood, inclosed in its web, in an oak-leaf, and with it a ball of eggs, which was of a pale blue colour.

PLATE XII.—FIG. II.

THE back, legs, and feelers, of this species were brown: the upper side of the belly of an orange-colour, curiously marked with femicircular spots: on the under side was a broad black mark, reaching from the head to the tail: eyes fix.—Found in Caen-wood, in June.

PLATE XII.—FIG. III.

THE back and belly were almost black, with a mixture of a red and purple cast: on the top of the belly were tender markings of light brown, resembling lace-work, with dark coloured spots: eyes fix.—Found in Bishops-wood, the latter end of August.

PLATE XII.—FIG. IV.

ALL the back, upper side of the belly, legs, and feelers, were curiously marked with black, and light ash-colour: the fore-part of the head was a reddish: under part of the belly ash-colour, with a cast of green: eyes eight.—Found at Woolwich. Two similar ones, but of a smaller size, were caught at the same time.

P L A T E XII.—F I G. V.

THE general complexion of this beautiful *Spider* was of an orange-colour: on the upper side of the belly was a row of whitish marks of different sizes, from the back to the tail: legs party-coloured: eyes eight.—Taken at Maidstone, in Kent, the middle of August. A like species was found in Caen-wood.

P L A T E XII.—F I G. VI.

THE body of this specimen was of a dark brown: the belly of a deep orange-colour, beautifully marked with yellow dots, and black bars: legs hairy, and party-coloured: eyes six. Like other males, it had large feelers.—Found September 10, on Hampstead-heath.

P L A T E XII.—F I G. VII.

THE back and upper part of the belly of this specimen were of a deep brown, with different light marks in every part: legs were light coloured and spotted: eyes eight.—Taken on Hampstead-heath, September 27.

P L A T E XII.—F I G. VIII.

THIS species was of a yellow-brown, ornamented, with a streak of dark colour in the middle of the back: on the top of the belly (which was remarkably small), were a few black lines: legs a yellow brown, and full of bristles: the ends of the feelers remarkably curious: eyes six.—Taken by the New-river, near Ilington, the middle of September.

P L A T E XII.—F I G. IX.

THE belly of this specimen was of a dull orange-colour, prettily marked with black, and flesh-coloured dots: the body almost black: legs hairy, and speckled with brown: feelers spotted: eyes six.—Taken the latter end of August, in Bishops-wood.

P L A T E XII.—F I G. X.

THE body and belly of this *Spider* were of a yellowish-brown, with a broad stripe of lead-colour on the top of the back. By the assistance of glasses, the belly was discovered to be inimitably

inimitably besprinkled with minute brown spots: and with the legs, which were also curiously speckled, altogether presented a more beautiful spectacle than any other species here described: eyes six.—Taken under the coping of a wall, at Newington, the middle of September.

PLATE XIII.—FIG. I.

THE belly of this singular specimen was of a dull orange-colour, with tender markings of red, and a few dots of white, down the middle: the body, which was remarkably small, was of an ash-colour: legs a faint yellow, and spotted with dark brown: eyes eight.—Taken in a garden, at Hackney, the middle of May.

PLATE XIII.—FIG. II.

THE back was of a chefnut-colour: the belly black, with small division-lines of white. A ball of eggs, of a pale blue colour, was attached to its belly.—Found near Charlton, in Kent, the middle of June.

PLATE XIII.—FIG. III.

THIS *Spider* was entirely of a dark brown-colour. The belly delicately spotted with white: the legs spotted with black.—Found, May 14, on its web, near Charlton, in Kent. It was a female, and had four eyes.

PLATE XIII.—FIG. IV.

THE belly was of a fine glossy grey, with two rows of white spots along the middle of the back: feelers were also a deep grey. On account of its shining surface, the eyes could not be ascertained: legs a chefnut-colour.—Taken in Caen-wood, the first part of June.

PLATE XIII.—FIG. V.

THIS species was altogether of a red buff-colour, with a few light spots on the top of the belly, and some black markings on the feelers and legs: eyes six.—Taken, August 30, amongst Ferns, on Hampstead-heath.

P L A T E XIII.—F I G. VI.

THIS *Spider* was entirely of a yellow-brown-colour, and in figure resembled a Tick. On the back were two black lines, and a few tender markings of brown on the belly.—Found in Caen-wood, the beginning of June. A very small one was caught at the same time, but with similar markings.

P L A T E XIII.—F I G. VII.

IN shape, this species also resembled a Tick, and in every part was of a dark brown, with some faint clouded marks on both sides of the belly: legs speckled: eyes eight. Caught in Caen-wood, the early part of June.

P L A T E XIII.—F I G. VIII.

WAS altogether of a mottled lead appearance; but the top of the body and legs, rather lighter coloured. It is one of those long-legged species, so called, which have no division of back and belly, as is common to all other *Spiders*. The body was much larger, and the legs shorter, than is usual in this tribe.—Found under the coping of a wall, near London, the end of September.

P L A T E XIII.—F I G. IX.

THE whole of this specimen was of a chocolate-colour, with a few white and brownish marks on the belly: the legs were hairy, and spotted with black: feelers slender and spotted: eyes six.—Caught in a garden, the beginning of September.

P L A T E XIII.—F I G. X.

THE belly of this beautiful species was of the finest yellow, with an irregular brown mark, from the middle to the extremity. On the broadest part of this mark was the exact figure of a cross in white: the under part of the belly was speckled with brown, and the back was a chestnut-colour: the legs partly-coloured with black and yellow.—Taken on Hampstead-heath, the beginning of September.

PLATE XIV.—FIG. I.

THE back of this elegant specimen was of a light brown: the belly a beautiful green, with a row of dark spots on each side, and the extremity of a fine crimson colour: black and globular knobs were at the ends of the feelers: eyes six.—Caught on Epping-forest, the beginning of May. This, and Specimen VI. in Plate IV. were supposed to be male and female.

PLATE XIV.—FIG. II.

THE extremity of the abdomen was of a clouded yellow: the part next the body white; in which were two streaks of black: legs a light brown, and the two foremost the longest.—Found in Caen-wood, the middle of April.

PLATE XIV.—FIG. III.

THE back was black, as was also the belly, excepting two lines of a light colour on the top, which in figure resembled a V. the legs were beautifully spotted: eyes not discernible.

PLATE XIV.—FIG. IV.

THE whole of this curious *Spider* was of a light yellowish-green, with a faint shade on each side of the back, and some spots on the upper side of the belly, two of which were of a blood-colour: feelers slender: eyes eight.—Taken in a wood, at Lewisham, in Kent.

PLATE XIV.—FIG. V.

THE back was almost black: upper side of the belly green, dotted with a dull yellow: legs spotted: eyes six.—Found on a hazel-tree, the beginning of September.

PLATE XIV.—FIG. VI.

THE body was of a dark red, with a broad stripe of black on the upper part: the belly was of a lead-complexion, and curiously spotted: eyes six.—Taken under the coping of a garden-wall, at Newington, the middle of September.

P L A T E XIV.—F I G. VII.

THE body of this large and elegant species was of an ash-colour: the belly of a chocolate-hue, and curiously marked with broad white spots: legs were of a light brown, spotted and hairy: eyes eight.—Taken in a garden, at Hoxton, the middle of September. Being kept in a box, and supplied with flies, till the latter end of September, no alteration either in colour or size was observed, during that period.

P L A T E XIV.—F I G. VIII.

THE back was of a deep brown, with a dark stripe on the top: the belly of a chocolate-colour, and beautifully figured with different sized dots of a pale buff colour: legs spotted with dark brown, and hairy: feelers spotted: eyes six.—Taken in a garden, at Tottenham-court, July 27.

P L A T E XIV.—F I G. IX.

THE smallness of this species, and its natural complexion, altogether gave it the appearance of a Tick. It was of an ash-colour, and on each side of the back was a little admixture of red: eyes not perceivable.

P L A T E XIV.—F I G. X.

THE upper side of the belly was of a pale yellow, with an irregular brown mark, from the middle to the tail: the back and legs were semi-transparent, and the alternate spots of red and black, gave those parts the appearance of tortoiseshell: feelers slender: eyes eight.—Taken curled up in a leaf, near its web. A similar one was found on an oak, in Caen-wood, the beginning of September.

P L A T E XV.—F I G. I.

THIS remarkable specimen was entirely of a deep brown colour. The number of its legs were as other *Spiders*, but in the place of feelers were substituted two substances in shape of the claws of a lobster, of which it apparently made the like use; moreover, it possessed the peculiar power to move forwards or backwards with great facility.—Found amongst some books.

P L A T E XV.—F I G. II.

THIS delicate *Spider* was entirely of a light brown colour: the two foremost legs were the shortest: the two next the longest. It is of that genus, where body and belly are conjunctively one.—Taken at Hackney, the beginning of May.

P L A T E XV.—F I G. III.

By the assistance of glasses, a rich assemblage of vivid colours vying with the opal, were here found blended together, and in every part adorned this little *Spider*; the eyes were not discernible.—Taken on the body of a tree, in Caen-wood, the middle of April.

P L A T E XV.—F I G. IV.

THE general complexion of this species was of a ferruginous hue, with a few faint light coloured spots on the top of the belly, encompassed with a scalloped black shade: legs spotted: eyes fix.

P L A T E XV.—F I G. V.

THE surface and colour of this specimen resembled scarlet-velvet. On the belly were a few transverse lines of a deeper shade.—Taken in Caen-wood, the beginning of June.—Are found likewise in gardens, on bodies of trees, but the latter sort are smaller, and moreover reputed venomous.

P L A T E XV.—F I G. VI.

EVERY part of this specimen was of a copper-colour.—Found in the middle of a web, in Caen-wood, April 16. Feelers very short: eyes not discoverable.

P L A T E XV.—F I G. VII.

THIS singular species was in every part piebald, with beautiful patches of black and white dots: eyes eight. It was remarked, that its young ones, though no bigger than a rape-feed, had similar markings.—Found near the New-river, at Illington, the middle of May.

P L A T E

P L A T E XV.—F I G. VIII.

THIS singular specimen was in every part of a dull white complexion, with the addition of some grey, and a few scarlet spots on the top of the belly: eyes eight.—Found in Bishopswood, near Hampstead, June 28.

P L A T E XV.—F I G. IX.

EVERY part of this beautiful *Spider* was of an ash-colour, delicately spotted with black. The extreme glossiness of the front of the body, prevented the ascertaining the exact number of its eyes.—Found in a garden, at Hackney, the latter end of August.

P L A T E XV.—F I G. X.

THE general colour was a deep chocolate, with a broad irregular mark of black, extending along the body, to the extremity of the abdomen: legs spotted: eyes six.—Taken under the coping of a wall, at Newington, the middle of September.

P L A T E XV.—F I G. XI.

THE general surface of this large and fine specimen was of a light brown: the back and upper side of the belly being beautifully adorned with black bars, and white marks: legs hairy, and alternately spotted with brown and black: eyes six.—Caught in a garden, at Hackney.

P L A T E XVI.—F I G. I.

EVERY part of this *Spider* was of a deep brown, with black and white markings on the back and belly: feelers long and almost black: eyes eight.—Taken on the ground, in Greenwich-park, March 31.

P L A T E XVI.—F I G. II.

THIS species was entirely of a copper-colour, with curious white markings on the top of the belly, resembling lace-work: legs spotted: eyes eight.—Taken near Peckham, August 6.

P L A T E

P L A T E XVI.—F I G. III.

THE back and belly were of a pale redish green, beautifully dotted with red, and nearly transparent : the legs and feelers were of a pink-colour : eyes six.—Caught in Caen-wood, September 20.

P L A T E XVI.—F I G. IV.

THE belly was of a grass-green : the upper part encompassed with a yellow triple border, the æra of which, formed, as it were, a shield, marked with a few dots of flesh-colour, and black : legs spotted : feelers transparent, and spotted : eyes eight.—Taken in a hedge, near Hornsey-wood, April 20.

P L A T E XVI.—F I G. V.

THIS *Spider* was in every part of a light grey, and speckled in a delicate manner with black. In shape, it was rather flat, but exceedingly nimble.—Taken in Caen-wood, September 20.

P L A T E XVI.—F I G. VI.

WAS entirely of a deep grey colour, with the exception of a few light dots on the top of the belly : eyes imperceptible.—Found wrapped in a nettle-leaf, with a ball of eggs, of a bluish colour, near Rotherhithe, the latter end of August.

P L A T E XVI.—F I G. VII.

THIS delicate species was altogether of a pale green, with two streaks of black on the back, and similar ones on the belly : globular knobs were at the end of the feelers.—Taken in a garden, at Hackney, April 20.

P L A T E XVI.—F I G. VIII.

THE back, legs, and feelers, were of a pale green : the upper side of the belly of a dark red, streaked with black, and encompassed with a yellow border : the under part of the belly inclining to a yellow : eyes eight.—Caught in Caen-wood, September 11.

P L A T E XVI.—F I G. IX.

THE upper part of the belly was of an ash-colour, prettily figured with strokes and different sized dots of white: the body was very small, and also had an ashen hue: legs spotted and hairy: eyes eight.—Found on Putney-heath, September 11.

P L A T E XVI.—F I G. X.

THE back of this large species was of a dark brown, on which were two black lines: the upper side of the belly of a flesh-colour, curiously marked with patches of white, edged with brown: the legs and feelers spotted: eyes eight.—Found in a furze-bush, on Putney-heath, September 11.—It was remarked to have made a very thick web, of about one inch diameter, where it rested, and beneath was spread another web, hanging perpendicular, to catch its prey.

P L A T E XVII.—F I G. I.

THE body of this long-legged species was of an orange-colour, with a yellow circle on the upper part, in the front of which were placed two eyes: legs were of a leaden hue.—Found in Caen-wood, the beginning of June.

P L A T E XVII.—F I G. II.

THE general complexion of this specimen was of a light brown, with a broad patch on the top of the body of a deeper colour, on which were a few black spots: the under side of the body was yellowish.—Taken in Caen-wood, the latter end of July.

P L A T E XVII.—F I G. III.

WAS altogether of a dark brown. The body rather smaller, and flatter than is usually observed in this species: eyes two.—Found near Peckham, the beginning of July.

PLATE XVII.—FIG. IV.

EVERY part was of a buff-brown, with two irregular lines, and a number of brown specks on the top of the back.—Found under the coping of a wall, the latter end of August.

PLATE XVII.—FIG. V.

THE legs were of a light grey, as was also a portion of the top of the body, which was bordered with two waved lines of a dark colour: the sides, and under part, were of a deep brown.—Taken under the coping of a wall, the latter end of August.

PLATE XVII.—FIG. VI.

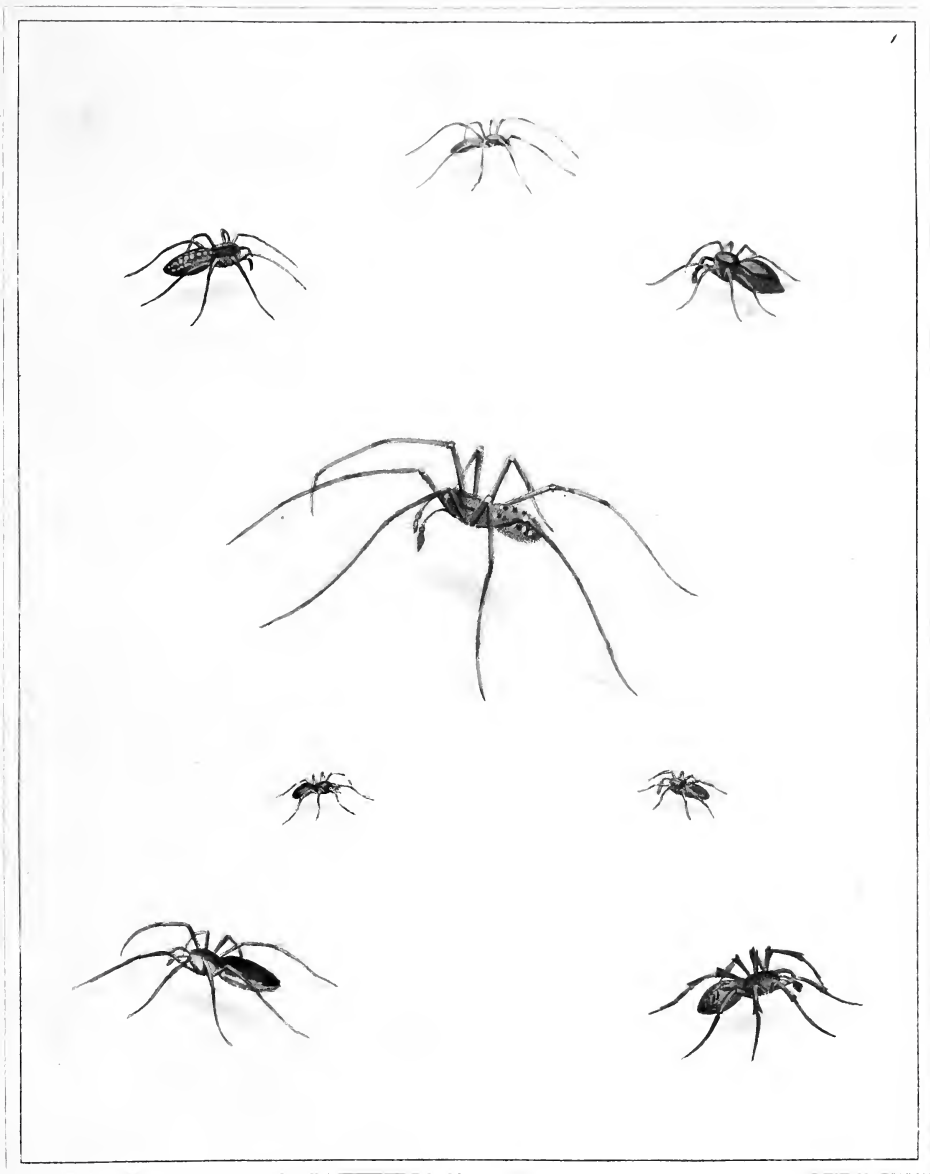
WAS entirely of an orange-buff colour, prettily marked with some lines on the back, and a number of short streaks on the belly, of a deep brown.—Taken the latter end of July.

PLATE XVII.—FIG. VII.

THIS *Spider* was altogether of a chocolate-brown, curiously marked with a few dark spots on the top of the body next the head, and a few cross-bars towards the tail: eyes two.—Found on the ground, amongst some old timber, the middle of September.

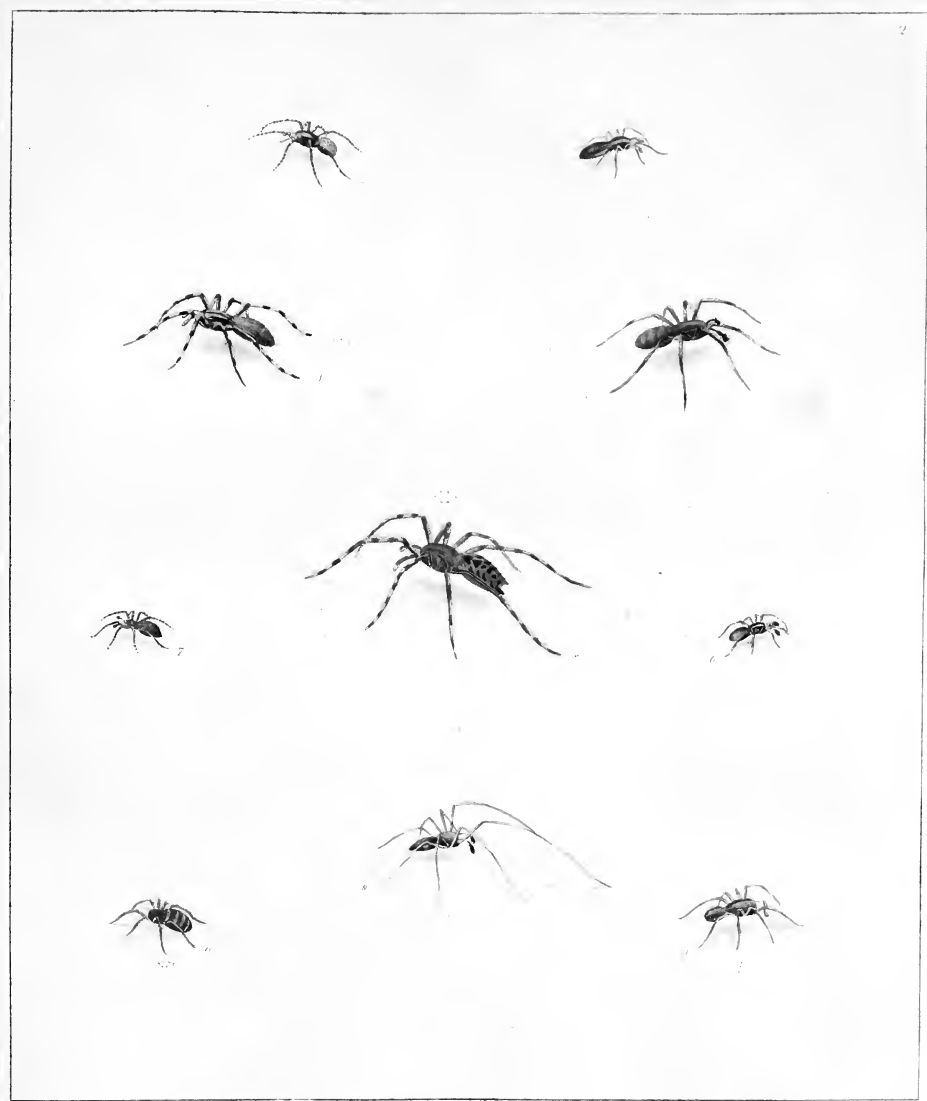


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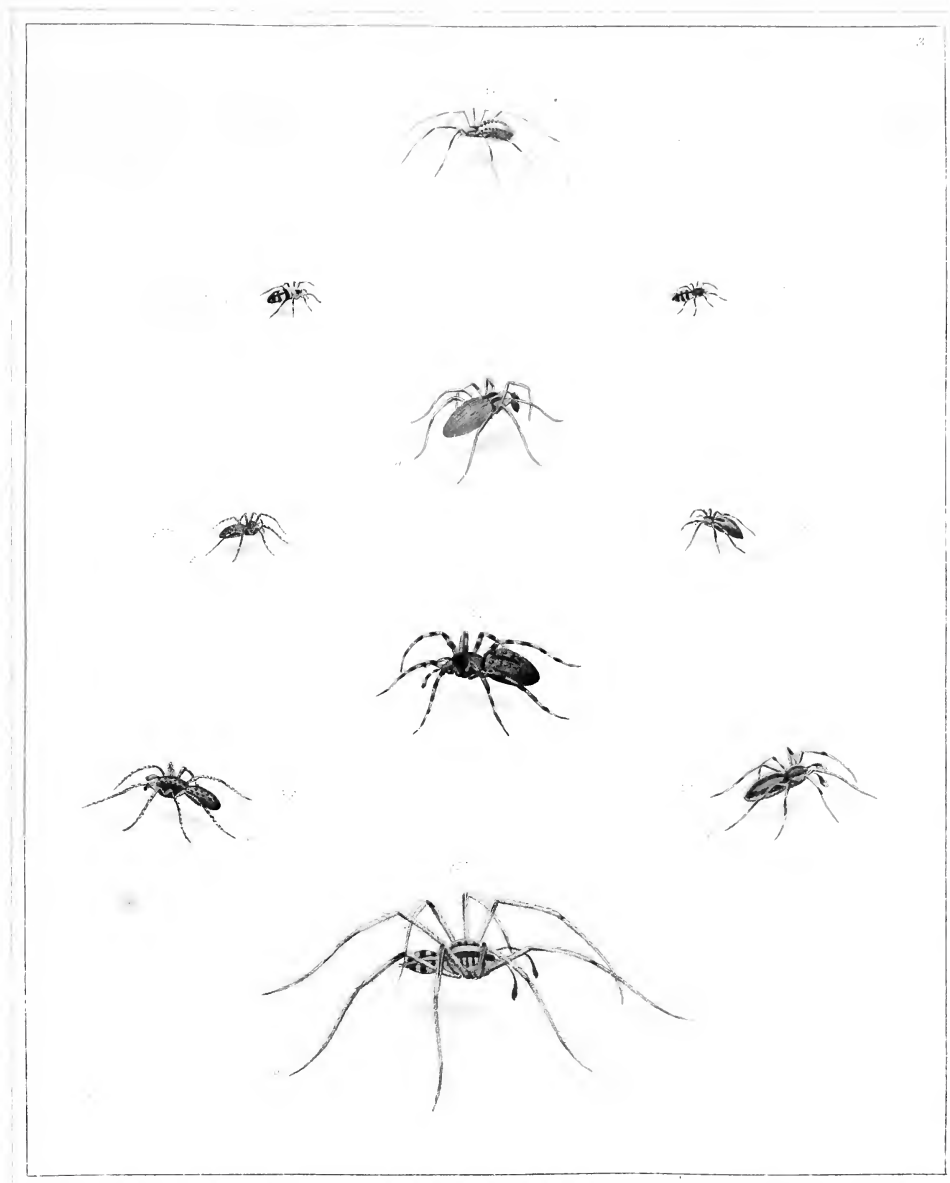
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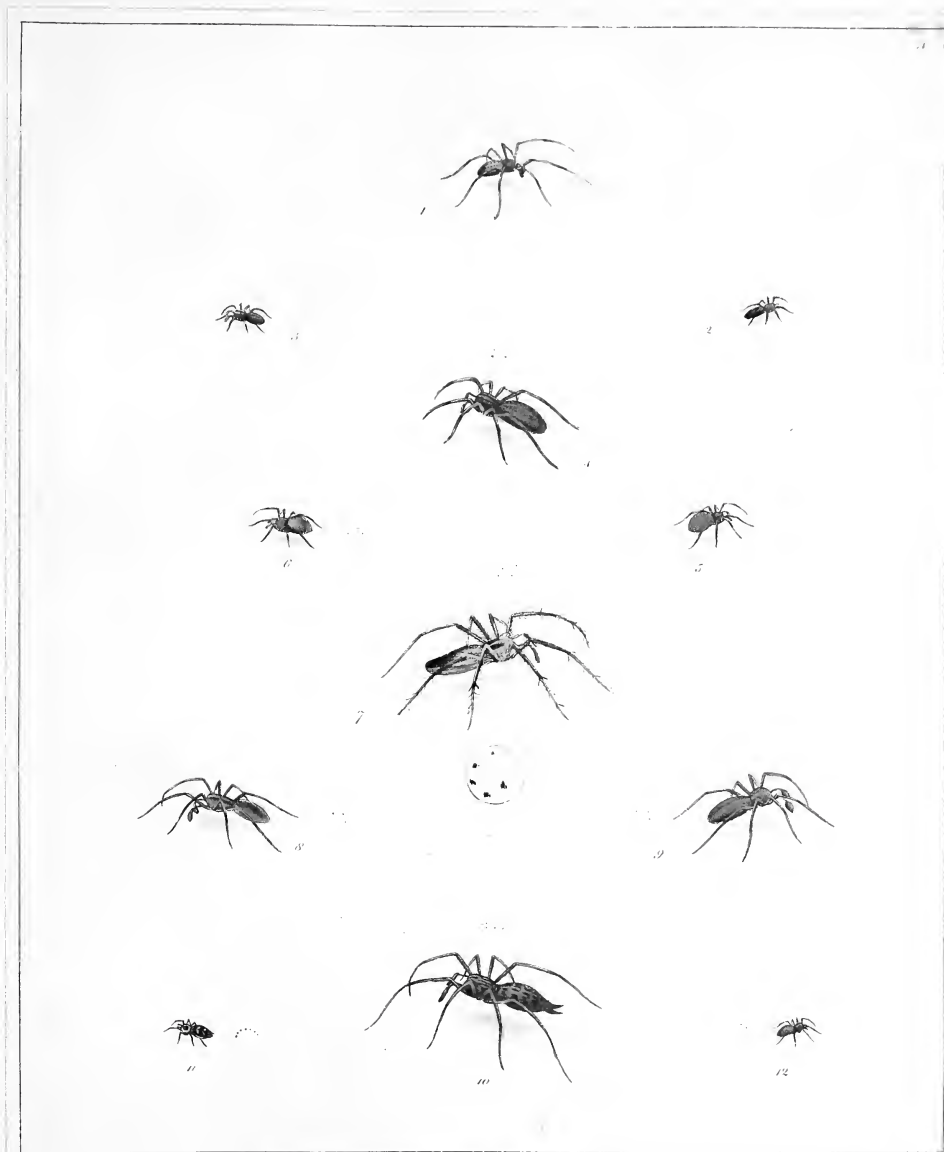




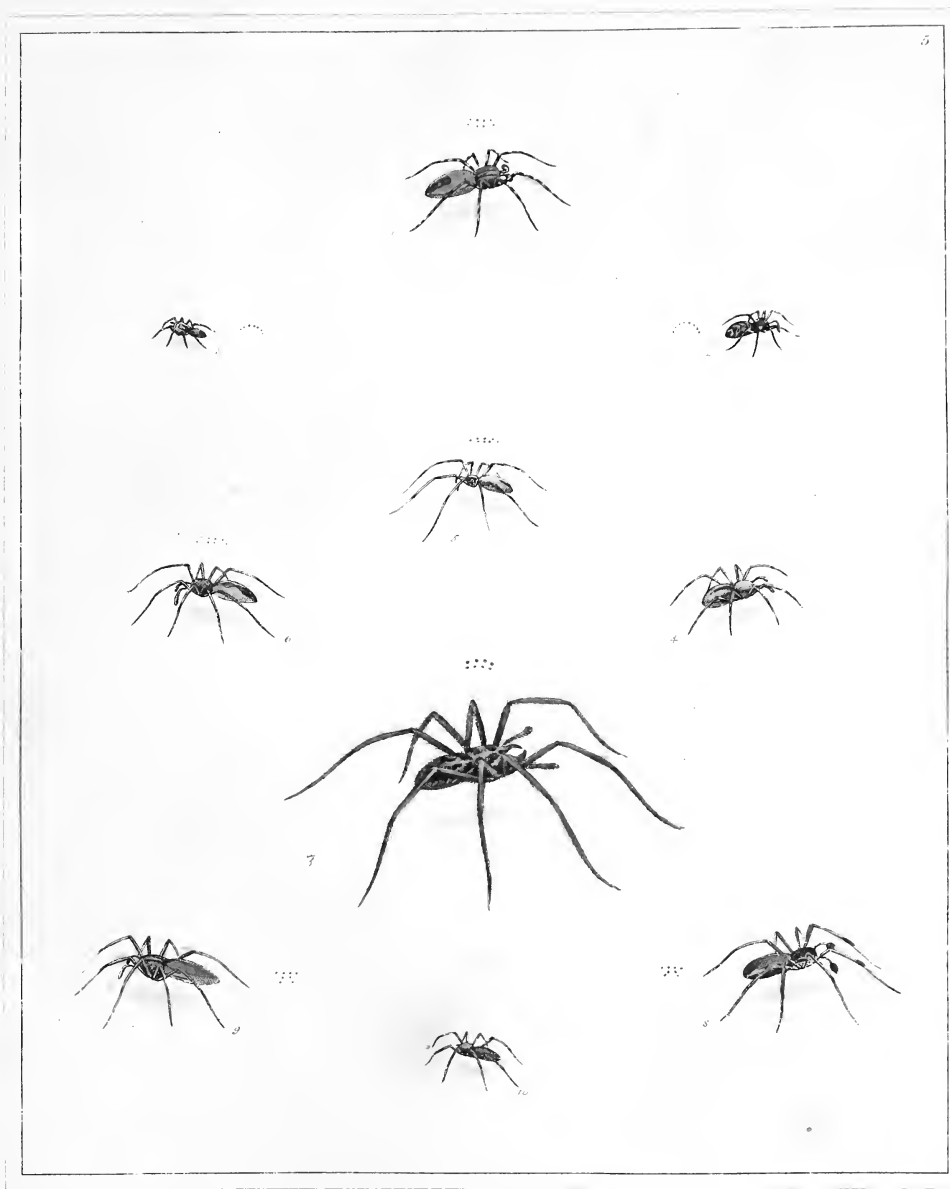
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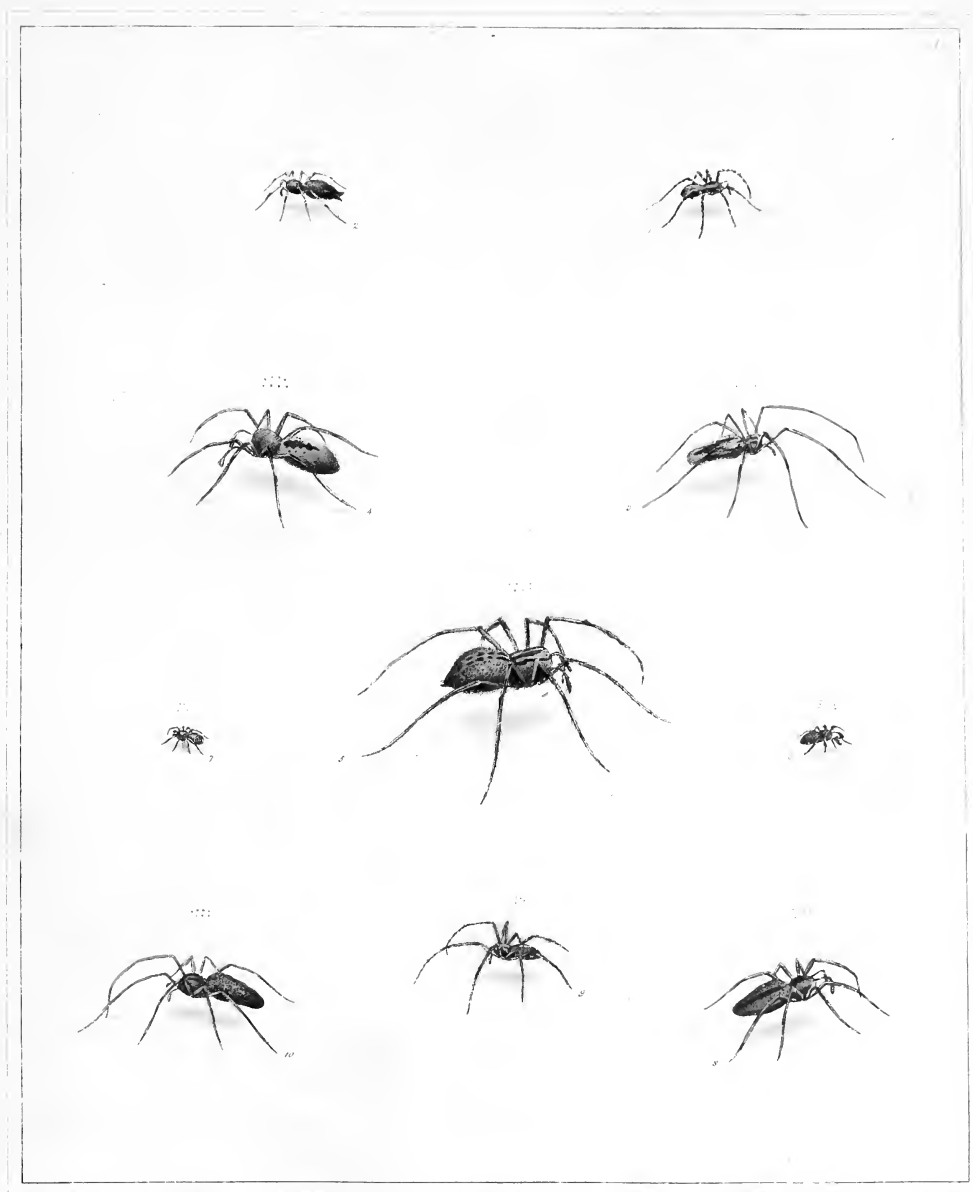
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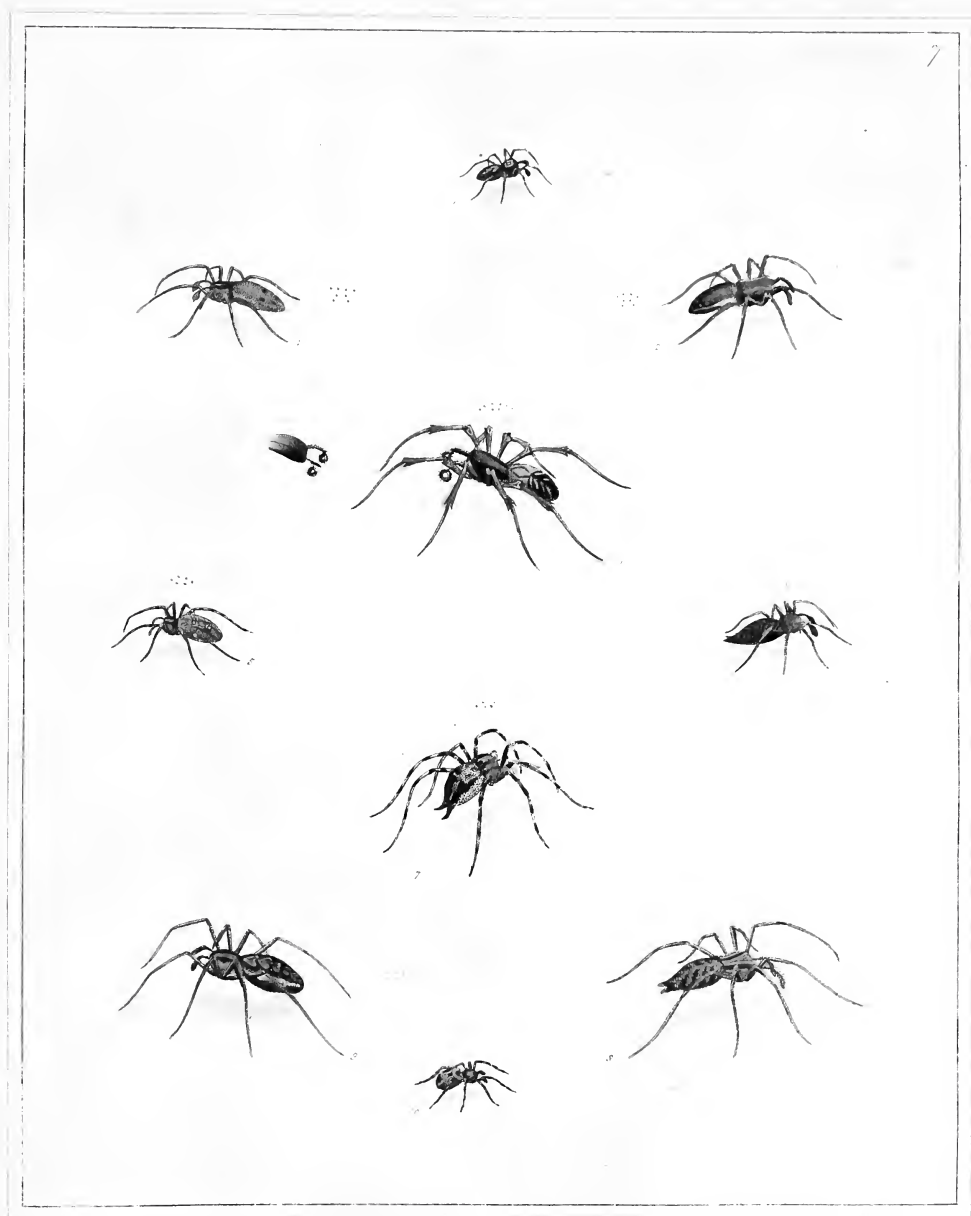


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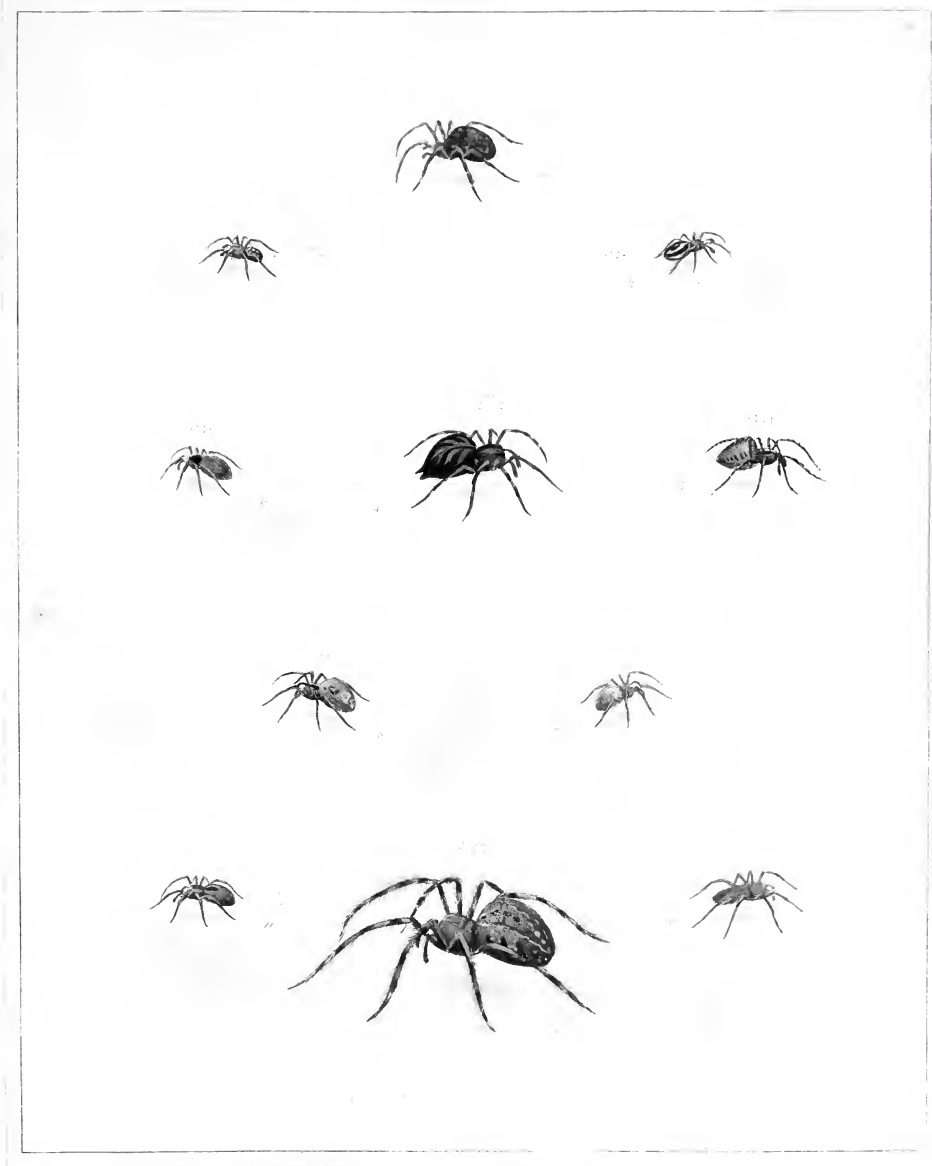


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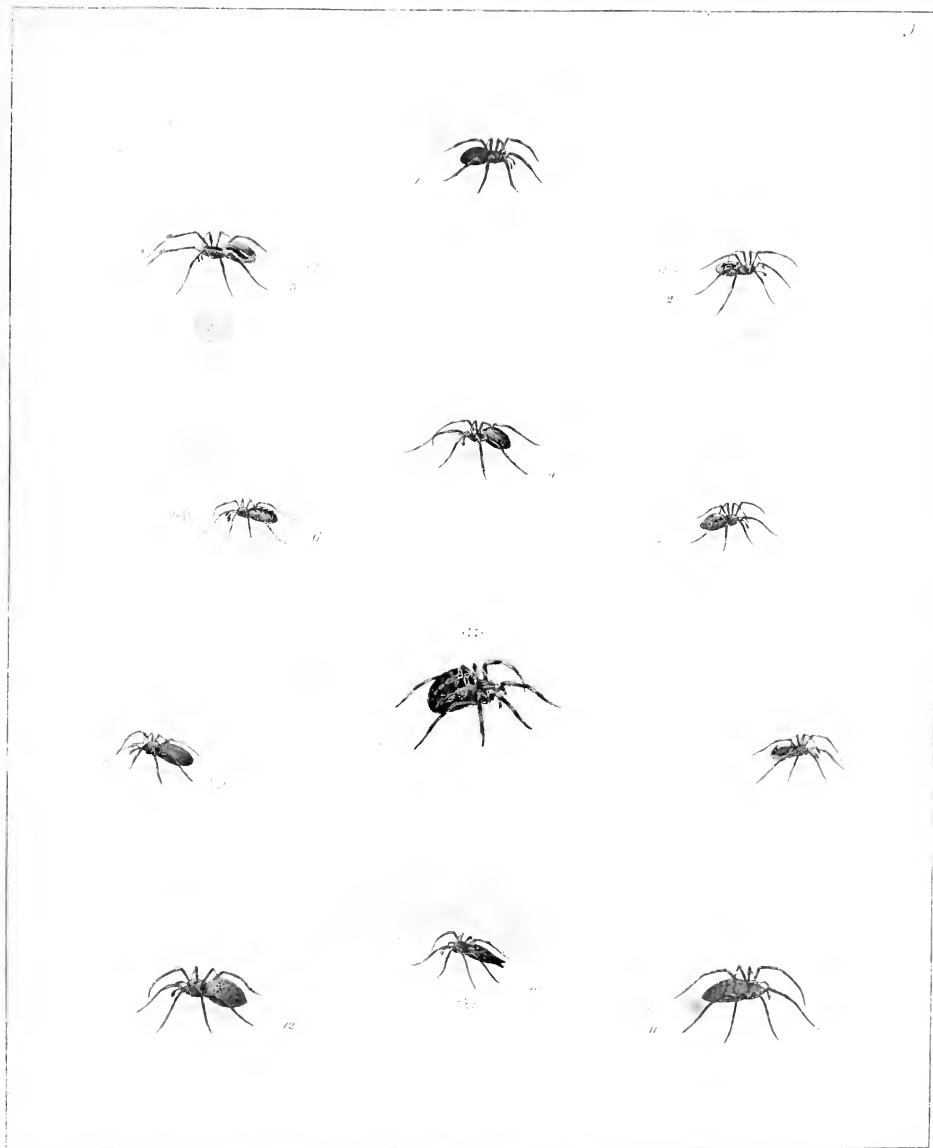
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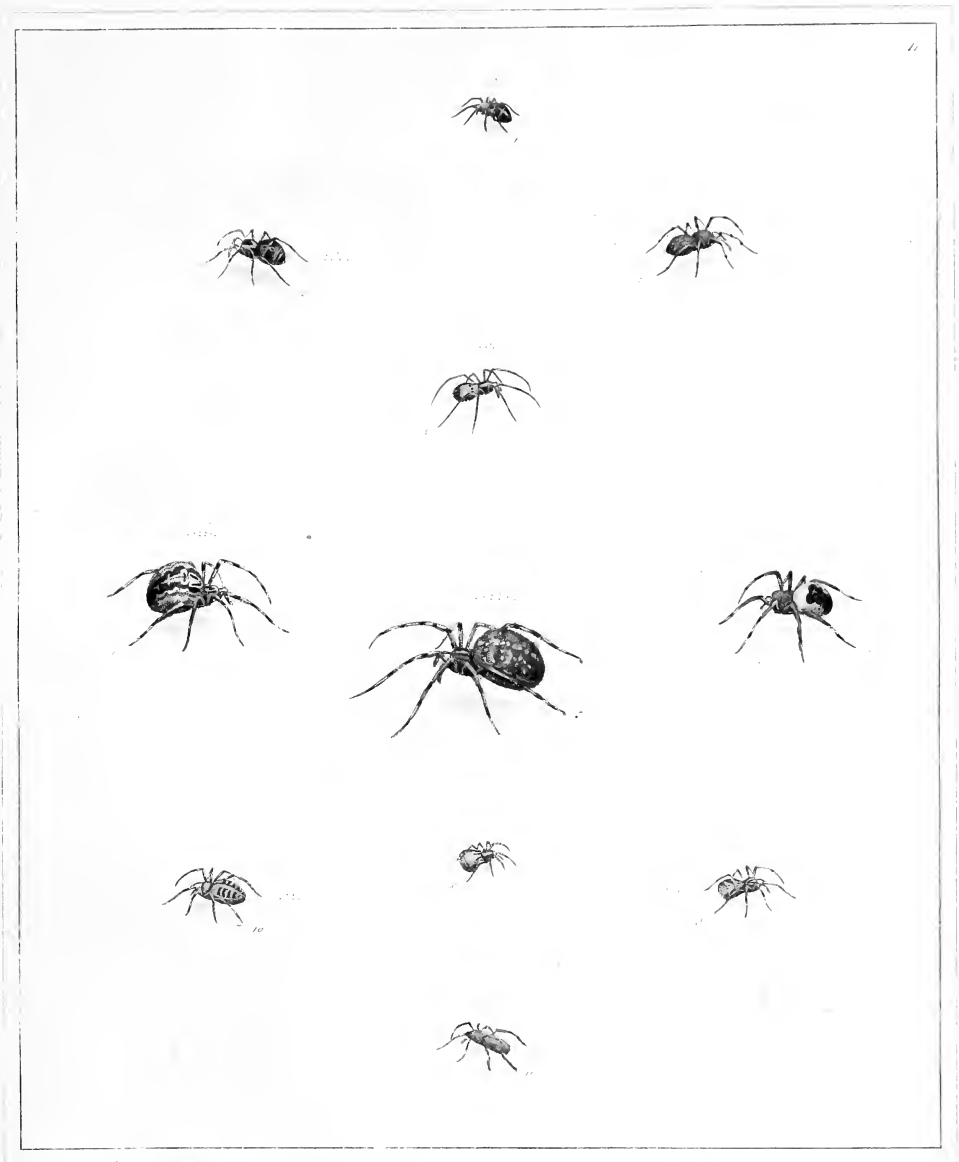


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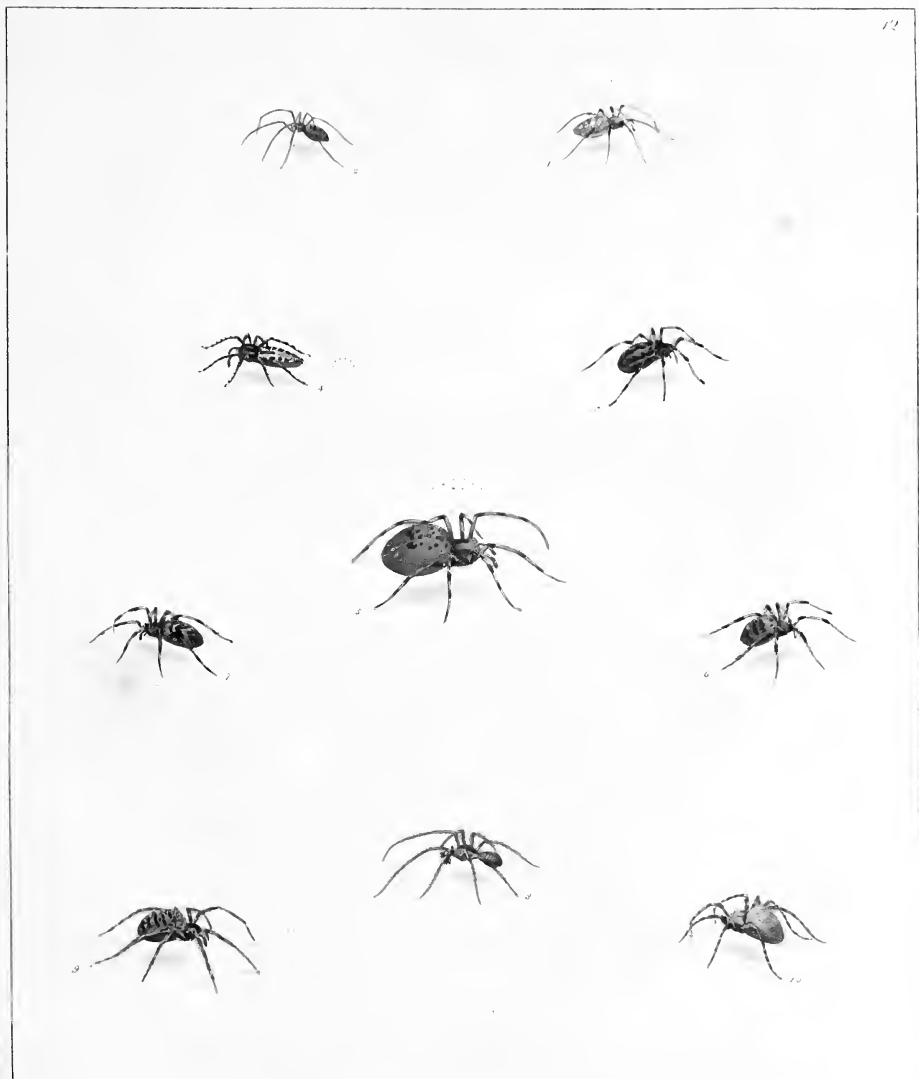


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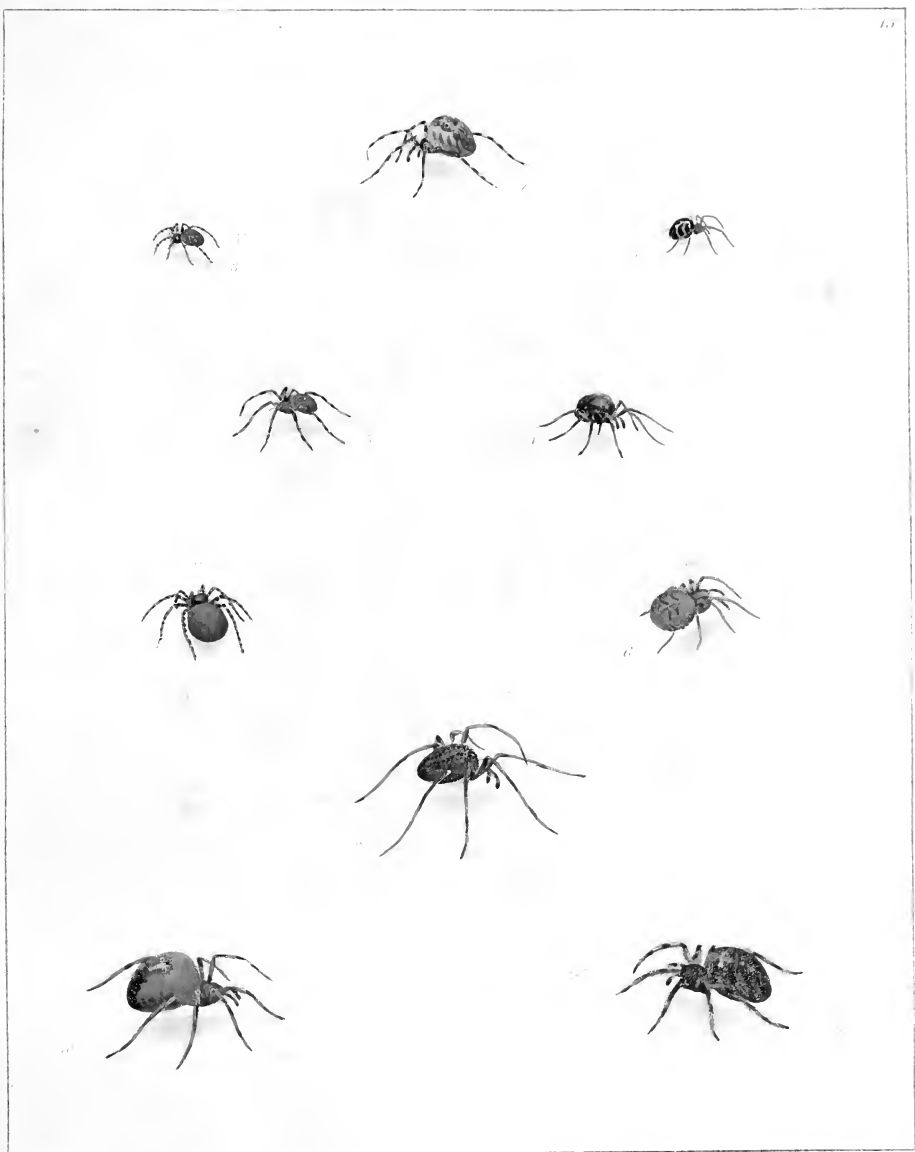


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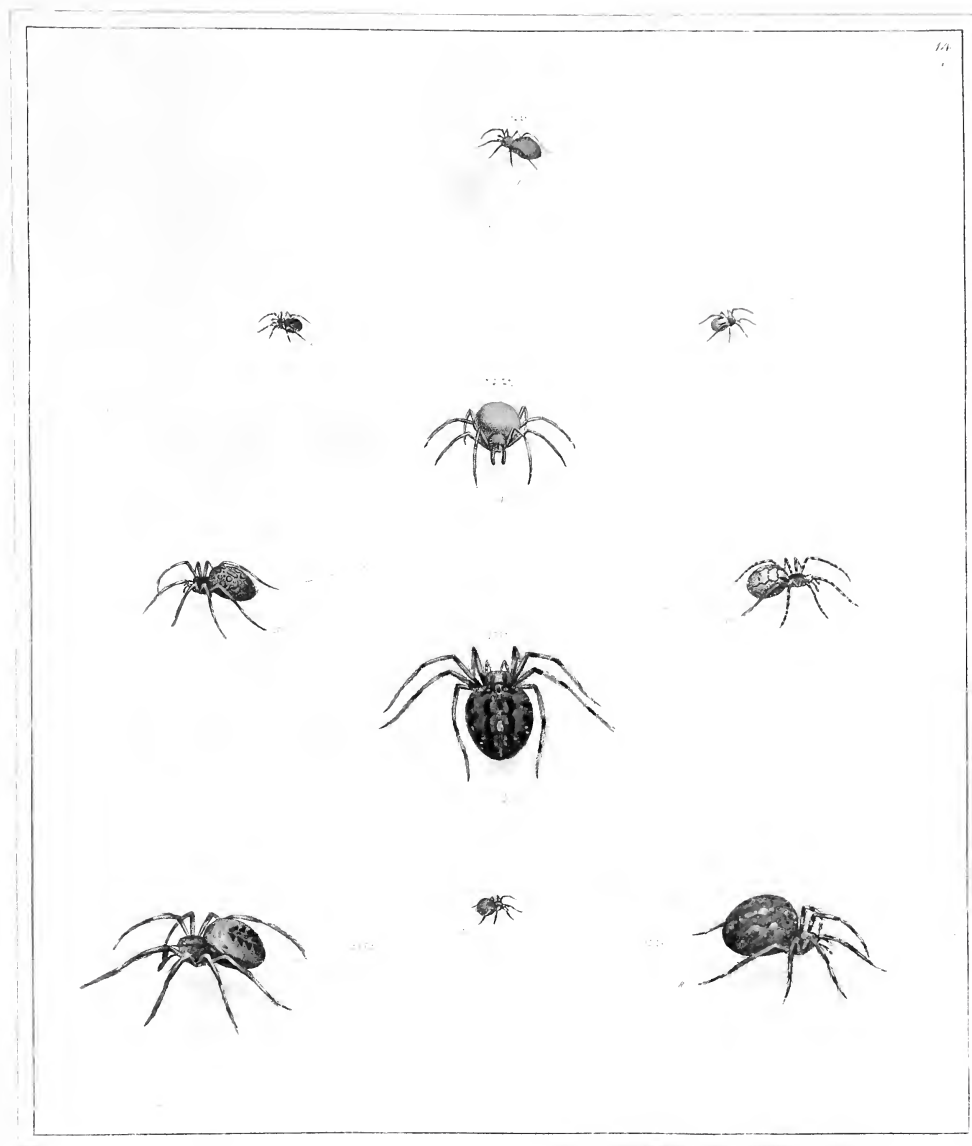
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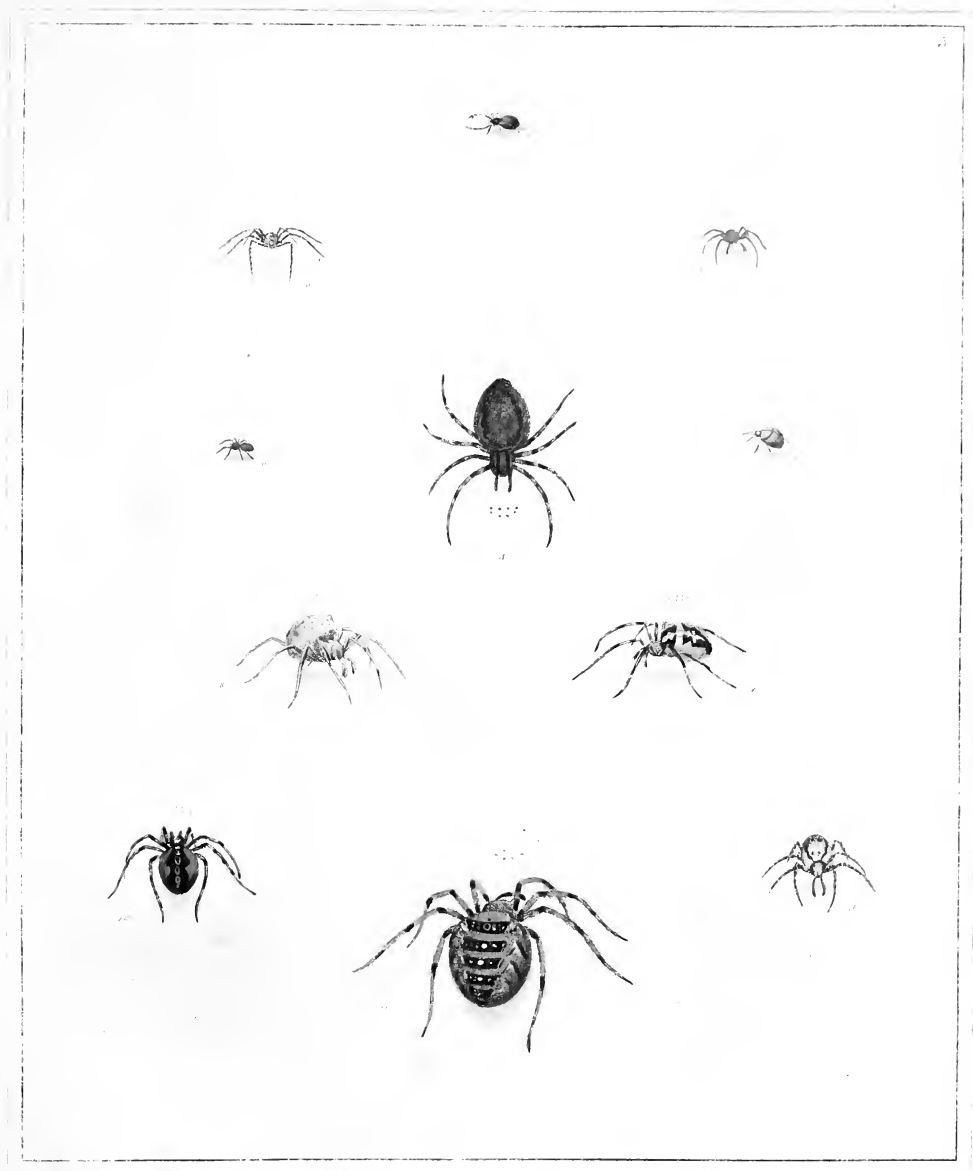


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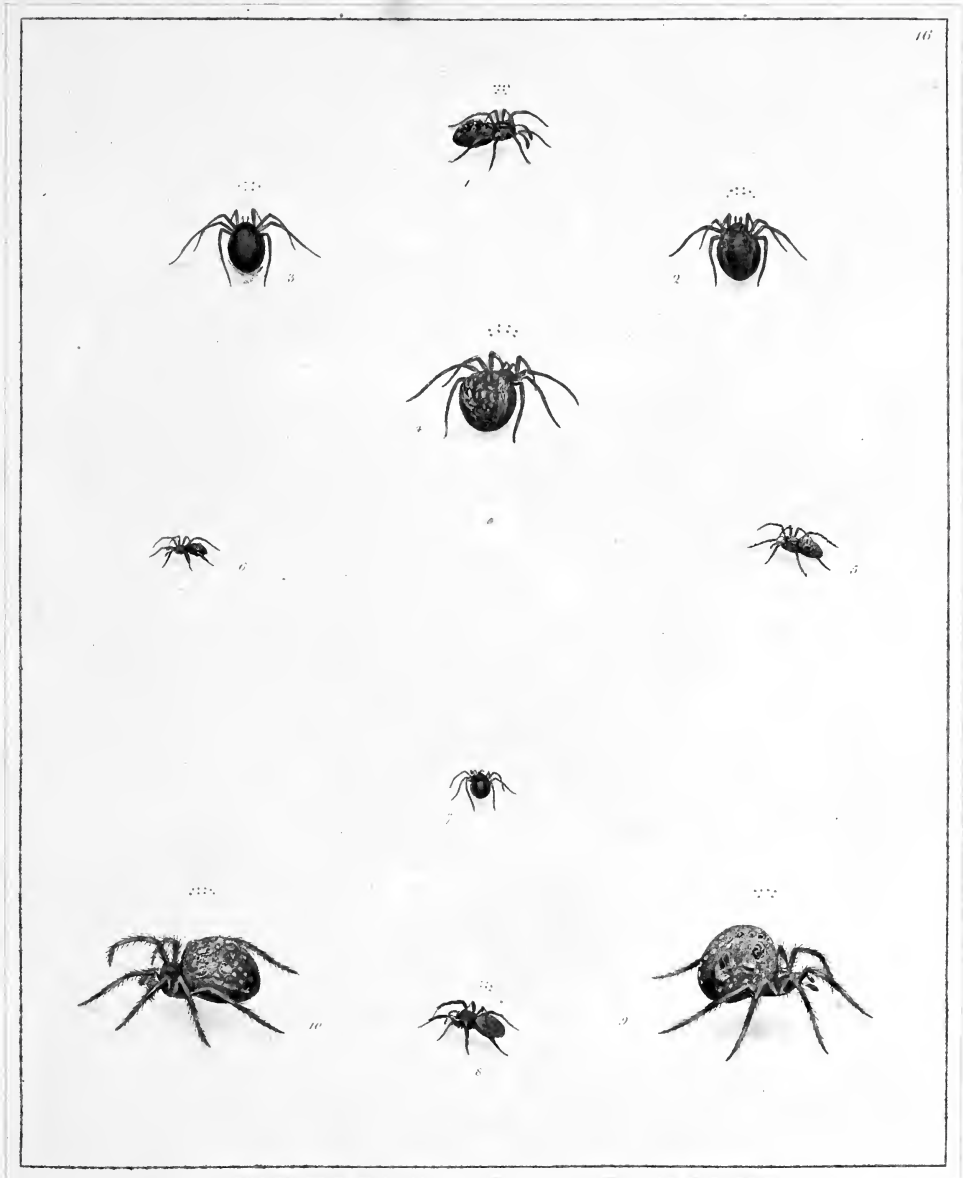


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